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HISTORY
OF THE
Post Office Department.
1789—1879.
TOGETHER WITH
COMPLETE DISTANCE TABLES
FOR ALL POINTS
IN THE UNITED STATES AND THE WORLD.

THE
POST OFFICE DEPARTMENT
OF THE
UNITED STATES OF AMERICA;

ITS
HISTORY, ORGANIZATION, AND WORKING,
FROM THE
INAUGURATION OF THE FEDERAL GOVERNMENT,
1789,
TO THE CLOSE OF THE ADMINISTRATION OF
PRESIDENT ANDREW JOHNSON.

FROM OFFICIAL RECORDS,
BY

D. D. T. LEECH,
Formerly of the U. S. Post Office Department.

Continued to October 1st, 1879,

WITH
TABLES FOR REFERENCE, INCLUDING TABLES OF
DISTANCES,

BY
W. L. NICHOLSON,
Topographer Post Office Department.

WASHINGTON, D. C. :
JUDD & DETWEILER, PUBLISHERS.
1879.

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INTRODUCTORY REMARKS.

No one of the Executive Departments ministers so effectively to the every-day wants of the people as the General Post Office. By opening channels of communication between widely separated communities, and by the rapid dissemination of information adapted to instruct the masses, it becomes a highly valuable instrumentality for advancing the public virtue and intelligence. Its influence in promoting the civilization of new settlements is only surpassed by that of the pulpit, the school-house, and the press, whose issues it circulates. Wherever the mail-carriers, with their instructive packets, make their appearance, law and order gradually supersede the rude customs and the violence of savage life. By means of the rapid interchange of thought which postal intercourse effects, the most distant portions of the body politic are closely united and firmly cemented. Besides the convenience to individuals and families resulting from its agency, the commercial prosperity of a nation is potently advanced by a well-regulated postal establishment. Further, its tendencies to break down the barriers interposed between nations by ignorance and non-intercourse, through the enlarged political thought and records of social progress which it transmits from one to the other, are of inestimable value. In short, whether viewed in its influence upon families, communities, or States, the Post Office is entitled to be regarded as an immense benefactor. Its mission is one exclusively of peace and good-will.

POSTAL SYSTEMS OF AN EARLY DATE.

Several of the nations of antiquity, including the Assyrians, the Persians, and the Romans, had posts for the trans-

mission of governmental notices and military orders, but none for the accommodation of private citizens. These consisted, usually, of couriers stationed at convenient distances apart, with horses saddled, and ready to carry the messages of the rulers, with the utmost dispatch, to the most distant portions of their respective realms.

A letter post was established in the Hanse towns early in the thirteenth century.

Mails for the benefit of the general public date their origin from the year 1516, when Roger, Count of Thurn and Taxis, introduced riding-posts into the Tyrol, connecting Germany and Italy. The Emperor Charles V subsequently extended them throughout his vast Germanic possessions appointing Leonard, Count of Thurn and Taxis, his post master general. The management of the office descended as an imperial fief to members of this house. That post is still maintained in some of the smaller German States.

The English postal system was originally introduced from Italy, but has undergone great modifications. As early as the reign of Henry III (1216-1272) letters were forwarded by messengers dressed in the royal livery. The present establishment dates from the time of Henry VIII who instituted the office of "Master of the Postes." In the reign of Queen Anne (1710) a general post office was established in London for the whole of the British dominions, with chief offices in Edinburgh, Dublin, New York and other places in the American Colonies, and one in the Leeward Islands, the whole being placed under an officer, appointed under the great seal, styled the Postmaster General.*

* "The Postmaster General of Great Britain and Ireland is now always a peer of the realm, a member of the Privy Council and generally, though not necessarily, a Cabinet Minister."—*Lewins's "Her Majesty's Mails."*

THE POST OFFICE IN AMERICA.

The first appearance of a post office on this side of the Atlantic is traceable to the year 1672, when Governor Lovelace, of the New York colony, in pursuance of instructions from the mother-country, organized a mail "to goe monthly" between the cities of New York and Boston. In 1677, the General Court of Massachusetts, in session at Boston, on the petition of sundry merchants, appointed Mr. John Hayward, "the Scrivener," postmaster at that place, "to take in and convey letters according to their direction."

In July, 1683, William Penn, the benevolent proprietary Governor of Pennsylvania, established a post office at Philadelphia, and appointed Henry Waldy, "of Tekonay," the postmaster, with authority "to supply passengers with horses from Philadelphia to New Castle, or to the Falls of Delaware, and to send a weekly mail between said places, the times of departure thereof to be carefully published on the meeting-house door and in other public places." The great philanthropist, about the same time, caused mail routes to be put in operation between Philadelphia and the principal towns of Pennsylvania and Maryland.

In 1692, the Virginia General Assembly, under royal letters patent granted to Thomas Neale, appointing him Postmaster General for the colonies and plantations in America, passed an act giving him authority to establish post offices in that colony; but this he failed to carry into effect, owing to the dispersed condition of its inhabitants.

In 1700[?] the British Government authorized Col. John Hamilton, of New Jersey, to establish post offices and organize post routes in the American Colonies for a period of twenty-one years; but his patent for the purpose was abrogated a few years subsequently, in consequence of the

statute (9th of Queen Anne, 1710) consolidating the colonial post office establishment with that of Great Britain and Ireland. The latter of those years may, therefore, be properly set down as the commencement of the American post office.*

In 1711 the mail ran weekly between Boston and Maine, and once a fortnight between Boston and New York; in 1717, weekly between New York and Williamsburgh, Virginia; and in 1727, once a fortnight from Philadelphia to Annapolis, Maryland.

In 1737 the great philosopher, Benjamin Franklin, was appointed postmaster of Philadelphia. In connection with this duty, he was employed, by the Deputy Postmaster General for the Colonies, in regulating the several post offices, and bringing the postmasters to account. On the death of that officer, in 1753, Franklin was appointed, conjointly with Wm. Hunter, to succeed him. In consequence of improvements made by them in the service, the receipts of the establishment were so increased as to furnish three times as much revenue to the British exchequer as the whole post office of Ireland. Nevertheless, while in England, in 1774, through "a freak of the minister's," as he himself so expresses it, growing out of his testimony in relation to the duplicity of Governor Hutchinson, of Massachusetts, and for his adherence to the cause of the colonies, Franklin was suddenly dismissed from office.†

* The general post office was in London, under the Postmaster General; his deputy for the colonies, to be appointed by himself, was to reside at New York.—W. L. N.

† He was succeeded by Hugh Finlay and John Foxcroft, who seem to have acted successively (or perhaps conjointly) Deputy Postmaster General of the Crown for the thirteen colonies, until the peace of 1783.—W. L. N.

THE CONTINENTAL POST OFFICE.

The Continental Congress, at its second session, held in the State House at Philadelphia, resolved, under date of July 26, 1775, to have a postal establishment of their own; and, on the following day, unanimously elected Dr. Franklin as its chief, with a compensation of \$1,000 per annum, and with authority to appoint a secretary and comptroller at \$340 per annum, each. This appointment, no doubt, was far more gratifying to the distinguished man than the one of which he was so unceremoniously deprived the previous year. Contemporaneous resolves of that venerable body show that he was vested with almost unrestricted authority in the management of the establishment. But his continuance in the position was brief, he having been shortly after called to diplomatic duties abroad, for which he possessed remarkable qualifications, and in which his success eclipsed, if possible, that which signalized his control of the postal establishment.

His successor was Richard Bache, his son-in-law, previously acting as comptroller, whose term began in November, 1776. The Lilliputian ledger kept by this gentleman down to 1779, showing the accounts of his deputies, is yet to be seen at the Department, consisting of about three quires of foolscap, written over in a very legible hand.*

He was followed, in 1782, by Ebenezer Hazard, who had acted as one of his surveyors of posts, and previously (in 1775) been the "constitutional postmaster" in New York, an appellation which served to distinguish him from the

* This interesting document is carefully preserved in the office of the Sixth Auditor in the Post Office Department building, where is also a lithograph copy of the portrait of Dr. Franklin, painted by M. Duplessis in France, and exhibited at the Salon in Paris; in 1779.--W. L. N.

deputy, at that place, of the British Government, which strove, for a short period after the breaking out of difficulties between the mother country and the colonies, to keep up a post-office establishment on this side of the Atlantic. The public archives are exceedingly bare of information touching postal operations during the revolutionary war. But, it is to be noted that the Colonial Congress passed an act, on the 18th of October, 1782, which, after a preamble setting forth the importance of the office, condensed all the previous enactments concerning it into one. This authorized the Postmaster General to appoint the necessary deputies, for whose fidelity he was to be accountable, and to set on foot a line of posts between New Hampshire and Georgia, and to such other places as he might think proper, or Congress might direct. It authorized him to pay his deputies for their services what he might consider them worth, not exceeding twenty per cent. of their postage collections. All surplus moneys were to be applied to the establishment of new post offices, and the support of packets, to make the institution as useful as possible. The postage charge on letters weighing not over one pennyweight, and going not over 60 miles, was equal to 5-90th of a dollar, and in proportion for greater weights and distances. The post-riders were allowed to convey newspapers outside of the mail, at rates deemed reasonable by the Postmaster General, on condition of their paying over to him a stipulated proportion of their receipts therefrom.

An act of September 7, 1785, authorized the Postmaster General to enter into contracts for conveying the mail in stage-coaches.

THE POST OFFICE UNDER THE FEDERAL GOVERNMENT.

WASHINGTON'S ADMINISTRATION—1789 to 1797.

"Congress has power to establish post offices and post roads." The Federal Government, by this declaration of the Constitution, became possessed of the exclusive control of postal matters for all the States.

Owing to the stagnation in business, caused by the war of the revolution, and the general poverty that ensued, as well as the exorbitant postage rates alluded to, which were nearly prohibitive, the postage receipts were very small, having in no year, during the Continental Government, exceeded \$35,000, and, in 1789, having amounted to only \$25,000. There had, also, been a lack of energy in the establishment, resulting from the facts that postmasters did pretty much as they pleased, that the contracts were loosely entered into, and that the depredators on the mails, and other offenders against the postal laws, could not be arrested without the consent of the individual States. A stronger hand was needed to give it due vigor. This we shall see was supplied by the new Government.

President Washington selected (September 26, 1789) for his Postmaster General, Samuel Osgood, of Massachusetts, who had served as a delegate in the Continental Congress from that State, and possessed fine abilities. He immediately appointed Jonathan Burrall as his assistant, Sebastian Bauman, postmaster of New York city, and Robert Patton, postmaster of Philadelphia. Mr. Burrall was despatched to the South without delay, to re-appoint such of the deputies as might be found to have conducted their office well, and could give proper security.

At this time there were but 75 postmasters in the Union, and less than 2,000 miles of post roads, consisting of one long route connecting the different large towns along the sea-board, from Wiscasset, in Maine, to Savannah, in Georgia, and half a score of connecting cross routes, the

entire annual cost of mail conveyance thereon, amounting to \$22,274.

The first Congress, in 1789, passed an act for the temporary establishment of "the post," under which its regulations were to be the same as they had been under the resolves and ordinances of the Colonial Congress. The law was annually renewed for two years thereafter.

In January, 1790, Mr. Osgood submitted to the Secretary of the Treasury a very interesting report on the condition of the postal institution, including suggestions for its improvement. He gave the opinion that unless a more energetic system could be put in force, no considerable revenue could be expected. He thought the postages were unreasonably high, that the regulations for the government of postmasters and post-riders were not sufficiently stringent, and that the mode of letting the contracts was defective. He said the post-riders had been under little control carrying letters and papers outside of the mails, and leaving and arriving on days and at hours of their own selection, no regular schedules therefor having ever existed south of Alexandria, in Virginia. He advised the letting of the mail contracts for longer periods, and at prices to be fixed by the Postmaster General, the plan of accepting them from the lowest bidders often resulting in their being taken by "poor people" who were unable to carry them into effect. The principal revenue of the office at this time according to this report, was derived from letters passing between one sea-port town and another. He advised to charge newspapers, carried in the mails, instead of letting them go free, as had been done.

Timothy Pickering, of Pennsylvania, who subsequently had charge of the Departments of State and War, was Washington's second appointment as Postmaster General, being commissioned on the 12th of August, 1791. His assistant was Charles Burrall.

In 1790 there were twenty mail contracts, at an aggregate cost of \$20,977. In 1791 the expense under this head was \$22,596.39.

In 1792 an act was passed to be enforced two years, "to establish the Post Offices and Post Roads in the United

rates." This, besides making other important improvements, introduced a judicious tariff of postages, arranged by Federal money, including a scale for newspapers, for which no specific rates had previously been legalized. These were one cent and one and a half cents, according to distance, one-half of the receipts therefor to be retained by the postmasters.

On the 8th of May, 1794, the first postal law of a permanent character was enacted. It supplied the defects of that of 1792.

As showing the rapid strides made by the Department during the first six years of Federal control, it may be stated, that in 1795 the number of post offices had increased from 75 to 453, the length of the routes from about 2,000 miles to 13,207 miles, and its annual income from \$25,000 to \$160,620.

JOHN ADAMS'S ADMINISTRATION—1797 to 1801.

The Postmaster General throughout this presidency was Joseph Habersham, of Georgia, who had been appointed by Washington on the 25th of February, 1795, in consequence of Mr. Pickering's transfer to the War Department. Mr. Habersham has the credit of having been eminently successful in imparting system and certainty to the mail service.

Early in 1800, a few months prior to the removal of this and the other Executive Departments from Philadelphia to Washington city, the Postmaster General appointed Abraham Bradley as his assistant, who discharged the duties of the position with eminent ability and fidelity for about thirty years.

The operations of the establishment had continued rapidly to expand, so that in that year the post offices were 903, the length of routes 20,817 miles, and the income \$280,804.

In a revised postal law, passed in 1799, Mr. Habersham had succeeded in obtaining the substitution of flogging for the death penalty as a punishment for stealing or robbing the mails. The new penalty of flogging was repealed by a subsequent postal law.

The existing law makes the penalty for robbing the mail five years for the first, and death for the second offense.

JEFFERSON'S ADMINISTRATION—1801 to 1809.

A few months after Mr. Jefferson's accession, viz: on the 28th of November, 1801, he called to the control of the Post Office Gideon Granger, of Connecticut, a gentleman of great energy in the discharge of duty.

At this time horseback and the slowly trudging mail-coach being the swiftest modes of conveyance known, it took forty days to obtain an answer at Portland, Maine, to a letter addressed to Savannah, Georgia, and forty-four at Philadelphia, Pennsylvania, for a reply to one addressed to Nashville, Tennessee. Ten years thereafter this Postmaster General (who remained at his post over thirteen years) exultingly informed Congress that these periods had respectively been reduced to twenty-seven and thirty days. The vast reduction in time since effected by railroads in the transportation of the mail-bags, could it have been foreseen by this industrious gentleman, would, doubtless have been as gratifying to him as difficult to realize.

A suggestion which this administrator succeeded in having incorporated into the revised postal law of 1810, and which was not repealed till 1865—although doubtless well intended, would have found latterly few advocates in Congress—the provision prohibiting negroes from employment as mail-carriers. He was of the opinion that they could not be safely trusted with such a duty, as it would enable the more intelligent of them to form schemes for the communication of intelligence detrimental to the whites. (1)

MADISON'S ADMINISTRATION—1809 to 1817.

The postal establishment, notwithstanding its rapid growth thus far, was in 1809 yet in its infancy, the number of post offices being only 2,012, and its annual receipts hardly half a million of dollars.

A revised postal law was passed in 1810, embracing the creation of the office of Second Assistant Postmaster Gen-

ral, and a new scale of postages, which charged single letters from 8 to 25 cents, according to distance, and newspapers, not going beyond the State of their publication, one cent each. It consolidated the post-routes into one body.

A subject which created considerable public feeling, and was not put at rest till twenty years afterwards, occupied the attention of the Postmaster General and Congress at his period, viz: the *Sunday mail question*. It grew up in this wise: Prior to 1810 the mail portmanteaus, especially on the leading routes, had been conveyed on all days of the week. Letters and other mail packets had, however, been handed out by the postmasters on Sundays, as a matter of courtesy, not of requirement. The law of 1810, which superseded all prior ones, made it imperative on these officers to attend their offices at all reasonable hours on *every day* of the week for this purpose, which hours Mr. Granger had arranged for Sundays to be one hour after the arrival and sorting of a mail, and when this interfered with the hours of public worship, one hour thereafter. The result of this change in the law and regulation was the receipt at Washington of numerous remonstrances, from large and respectable religious bodies, against not only the delivery of mail packages, but the running of the mails on the Sabbath.

The complainants contended that these practices were equally a violation of the divine command, in regard to the observance of the Sabbath with the opening of banks and stores, and justifiable on no principles except expediency and worldly advantage; that the rights of conscience were infringed by them; and that they indicated an opinion on the part of the public authorities that it was right to pursue secular callings on that day. The committee of Congress charged with the examination of this remonstrance argued, in reply, that the safety and due regulation of society demanded the employment of some of its agents, of which the post office was an important one, on Sunday; that if the mails were suspended on that day, speculators would be enabled to forward intelligence by private conveyance, whereby one portion of the public would obtain great advantages over the other; that the rights of con-

science were not invaded by the new regulation, as entered the service of the post office did so at their own risk; that the diffusion of information important to the education of the intellect and virtue of the nation was promoted by sending the mail forward on Sundays; that the granting of the requests of the remonstrants would be an interference by the legislature with the ecclesiastical question, a step shown by all history to be detrimental to the public society; and that the States alone were competent to control matters of this nature, the constitutional power of Congress not extending to questions of this class.

Two admirably composed reports of this tenor from the reputed slayer of Tecumseh, the Hon. R. M. Johnson, but generally ascribed to the pen of the Rev. O. B. Loring, chief clerk of the postal establishment, had a great influence in inducing Congress to make a decision giving complainants leave to withdraw their petitions.

In 1811 the Department made the novel experiment of running the mails between Baltimore and Philadelphia by teams owned by itself, and managed by its agents. Successful was the effort, clearing \$11,000 in three years. Congress consulted Mr. Granger in reference to the proposed arrangements on the entire line from Portland, Me., to Louisville, Ky., which he advised to be done, believing that the security and celerity of the mails would be promoted, the Government would have only its own interests to consider, and thus obtain a better service than from mail contractors who had the convenience of passengers to consider. As the experiment was abandoned, it is probable that Congress adopted the wise conclusion that such advantage would be far more than counterbalanced by the expense, patronage, perplexity, and responsibility, likely to be tailed upon the establishment by the adoption of the plan.

Although the success of the steamboat paddle as a means of propelling vessels had been reduced to a certainty in 1807, the multiplication of vessels of this class had proceeded so slow that no law in reference to mail contracts in this mode was enacted till February 27, 1813, when the Postmaster General was authorized to have the

in steamboats plying between one post town and for periods not exceeding four years, if the cost, into consideration distance, expedition, and freight should not exceed that for their transportation in the routes adjacent to the course of the boats, the contracts should secure regular conveyance of mail throughout the year. Two years later he was ordered to have the mail conveyed in any steamboat, not over three cents for each letter or packet, and one cent for each newspaper.

This new mode of transportation, as compared with horse conveyance, added greatly to the expedition of the mail bags to places situated on or near the rivers or other water navigation, and greatly facilitated postal service between distant States connected by such streams.

The growth of this class of mail service (steamboat) is shown by the following statement:

Number of Routes.	Length of Routes. Miles.	Annual Cost. Dollars.
-----	5,792	264,773
-----	10,826	313,943
-----	16,329	560,572
-----	14,976	1,073,852
-----	*4,744	224,542
-----	*13,088	359,598
-----	20,695	706,154
-----	15,788	684,130
-----	17,685	666,989

Decrease in routes caused by discontinuance of service in the Southern States.

In 1814, Mr. Granger having given offense to President Madison, by refusing to follow his advice, after having been appointed postmaster at Philadelphia, and one or two other places, was relieved of the office. His successor was Return J. Meigs, of Ohio, commissioned on the 17th of March of that year, and he occupied the chair over nine years.

About two years, near the close of the war with Great Britain, which occurred at this period, an addition of 50 per cent was made to the postage rates.

The postal law of 1816 arranged the postage tariff on a

new basis, and it existed for twenty-nine years then. It made letters composed of only one piece of paper going not over 30 miles, pay six cents each; not over 100 miles, ten cents; not over 150 miles, twelve and a half cents; not over 400 miles, eighteen and three-fourths cents; and for greater distances, twenty-five cents. Letters consisting of two or more pieces of paper, were charged correspondingly; and if weighing an ounce avoirdupois, paid triple postage. Newspapers not going over 100 miles out of the State of their publication, paid one cent; for greater distances, or beyond the State, one and a half cents. Magazines and pamphlets containing one and a half sheets, paid one and a half cents, for distances not over 10 miles; if prepaid; for greater distances, two and a half cents; if not prepaid, four and six cents, respectively.

MONROE'S ADMINISTRATION—1817 to 18

An application was made to Congress in 1818 to divide the branch of the postal establishment in one of the States. Its committee reported adversely to this, on the opinion that such a division of the establishment would impair its efficiency by diminishing the uniformity of its proceedings, and making it less convenient to the representatives from those States in the National Legislature. They contended that the entire establishment should remain subject to the direct inspection of its head, residing at the location of Congress and the other Executive offices.

In 1820 the number of post offices was 4,500; the number of routes 36,406 miles; and the postal revenue \$1,200,000.

On the retirement of Mr. Meigs, during whose administration the net profits amounted to \$387,209, John McLean, of Ohio, took charge of the postal reorganization on June 26th, 1823. He had been, for a short time previous, Commissioner of the General Land Office. He was a gentleman of great industry and energy, as well as of superior talents. He possessed the happy faculty of fusing his own spirit and zeal into his associates and subordinates. His financial policy differed from that of his predecessors, his aim being the extension of postal facilities to territory in need of them, rather than the accumu-

ofits. This will appear from the following statement of the net proceeds down to his retirement from the post, viz:

r Postmaster General	Osgood	-----	1789 to 1791,	\$15,392	
"	"	Pickering	-----	1791 to 1795,	47,310
"	"	Habersham	-----	1795 to 1801,	363,310
"	"	Granger	-----	1801 to 1814,	291,579
"	"	Meigs	-----	1814 to 1823,	387,209
"	"	McLean	-----	1823 to 1829,	13,466
Total				-----	\$1,118,266

rior to this period a specified number of the postmasters deposited the proceeds of their offices in neighboring banks, the residue forwarding them to the Department in notes. With these notes and checks sent through the banks, were paid the distant contractors.

The loss from bad debts, counterfeit money, broken drafts, and in the transmission of its funds, resulting to the Department down to this period was \$310,830. A less inconvenient, loose, and hazardous mode of receiving and disbursing its funds was much needed.

Mr. McLean, if not the first to conceive, was the first to put into effect the improved mode of collecting such proceeds, through quarterly drafts on postmasters in favor of mail contractors.

A conclusion has been made to several revisions of the original law of the establishment. The act of March 3d, 1794, which superseded all previous ones was of so perfect a character as to have remained till the present time, but with a few modifications of its fundamental statute.

It declared in its opening section that there should be established at the seat of Government of the United States, a General Post Office, under the direction of a Postmaster General, who should appoint two assistants, and clerks as might be necessary for the performance of business of the office. Its opening section made it his duty to establish such post offices, and appoint such post-riders on the post roads as should appear to him to be convenient. Also to provide for the carriage of the mails on the post roads as often, as he, having regard to the convenience thereof, and other circumstances, might think

proper. It prescribed the conditions on which he might let under contract, modify, or curtail the mail service, a code of punishment for depredations on the mails by post office clerks, or others, etc.

J. Q. ADAMS'S ADMINISTRATION—1825 to 1829.

On the accession of this President the offices numbered 5,677, and the annual receipts of the establishment aggregated \$1,306,525. Mr. McLean continued as the postmaster chief throughout this presidential term, with evident satisfaction to the public and Congress.

Down to 1827, although the establishment had been styled such, it had not ranked as one of the Executive Departments. The increase in Mr. McLean's salary made by Congress in that year, allowing him \$6,000 per annum, the amount received by the heads of the other Departments had the effect, as it was doubtless designed, to give it such rank.

JACKSON'S ADMINISTRATION—1829 to 1837.

Mr. McLean's views in regard to the appointment and removal of postmasters not according with those of General Jackson, he was transferred to the Supreme Bench and Wm. T. Barry, of Kentucky, a gentleman of great kindness of heart, and brilliant talents, was commissioned in his stead on the 9th of March, 1829. He was the first Postmaster General called to a seat in the Cabinet, a practice which has been continued to the present time.

This gentleman improved his predecessor's system of receiving and disbursing the Department's funds, by directing his deputies to remit their balances in all cases through certificates of deposit, instead of by bank-notes, and that no funds should be issued from the Department except by checks signed by two of its officers acting separately, and certifying to the correctness of each other.

Mr. Barry continued his predecessor's policy of keeping the revenues of the establishment in active operation by extending the postal service to the largest extent they would warrant. Under his orders, both the frequency and the grade of the transportation was advanced on great

members of the routes, to effect which objects he ordered heavy extra allowances to many of the contractors. The expenditures were enlarged from this cause so considerably to compel him to obtain loans from the banks, as well to defer payments due the contractors. This unhealthy condition of the finances gave rise to a great amount of unfriendly public comment and newspaper criticism, culminating in a tedious investigation of the affairs of the establishment, and Mr. Barry's transfer to a position calling for less financial ability, viz: the mission to Spain.

Fortunately the President's attention was turned to Amos Kendall, the Fourth Auditor of the Treasury Department, a suitable successor to Mr. Barry in the embarrassed state of the Department. In addition to executive talents of a very high order, this gentleman possessed a clearness of intellect, a firmness and industry, which admirably qualified him for his new position, which he entered on the 1st of May, 1835.

Besides personally inspecting the route books, to ascertain the service needed by the various post offices, and their expenses, he directed the opening of a new set of accounts, and the payment for all current service out of funds accruing in the quarter of its performance. The balances already due the contractors were transferred to a set of accounts called "Arrearages," to be settled out of future profits of the establishment. The extra allowances alluded to were forthwith stopped. As the public were satisfied that under judicious management the receipts of the Department were fully adequate to its support and eventual extrication from embarrassment, these steps revived general confidence, and re-established its credit. The gratifying results were such that in less than a year the debt was liquidated, (amounting to about \$500,000,) and, in October, 1837, a surplus of \$80,000 existed to its credit.

The improvements made by his two predecessors in the mode of collecting and disbursing the proceeds of the offices, received a valuable addition from Mr. Kendall, through the introduction of a quarterly "collection order" (still in use) in favor of contractors, authorizing them to receive from postmasters on the routes they served with the

mail, the entire sums in their hands. By this simple contrivance, which virtually made the creditors of the Department its collecting agents, it has been enabled for thirty years promptly to collect from the multitude of small offices, difficult of access in any way, their quarterly revenues.

In 1836 the law having authorized the establishment of horseback express mails to convey the letters of persons desiring great expedition, newspaper slips, and Government despatches at triple the ordinary rates of postage, a large number of these "pony expresses" were put in operation on the principal turnpikes of the Southern and Western States; but the experiment not proving a profitable one was soon abandoned.

REORGANIZATION OF THE DEPARTMENT.

An event constituting an important epoch in the history of the establishment occurred on the 2d of July, 1836, consisting in a reorganization of its bureaus, and a transfer of the settling branch of its business to an independent office styled "Auditor of the Treasury for the Post Office Department." Down to this period the Postmaster General had not only supervised the letting of the mail contracts, and appointed the postmasters, but had adjusted and paid the accounts of these classes, a practice not only at variance with that of the other departments, but with a recognized principle of great importance, that officers having no agency in the making of contracts, or authorization of expenditures, should have no connection with the settlement thence arising. Mr. Kendall's organizing mind, clearly perceiving this anomaly in the workings of this arm of public service, immediately set at work to provide a remedy, by submitting to Congress the *project* of the statute referred to, which was readily adopted by that body.

The leading features of the act were these:

1. It directed that the revenues of the Department, and all debts due it, should be paid into the United States Treasury.
2. It required the Postmaster General to submit to Congress, at each of its annual sessions, estimates of the service.

ed to be required for its use in the succeeding fiscal arranged under specific heads, such as Transportation, nsation of postmasters, Incidental expenses, etc.

t provided that the aggregate sum required for the of the Department in each year, should be approved by law out of its revenues, and that all payments a revenues into the United States Treasury should lited to said appropriation.

t directed that, in the disbursement of the sums so riated, the compensation of postmasters and other es of the offices might be deducted by the postmasters the proceeds thereof; and it empowered the Post- General to transfer debts due on account of the tment by postmasters and others, in satisfaction of emands for which appropriations had been made, to ontractors as might be its creditors, and had executed

he Treasurer was directed by the act to give receipts moneys received by him to the credit of the approps for the service of the Post Office Department, receipts to be endorsed on warrants drawn by the aster General; also to disburse such appropriations moneys paid into his office for such service on said its, (countersigned by the Auditor,) which warrants o express, on their faces, the particular item of ap- ation to which they were to be debited. Under the s made by this act the Postmaster General ceased as previously, a sort of *factotum*, with liberty to man- entire affairs of the Department, with as little re- as in a private establishment. A judicious distri- of the duties and obligations connected with its it was now established. Nevertheless, as it author- im to decide on the forms of all papers used by isters, and other agents concerned in its receipts and nts, as well as the manner and form of keeping its its; to control, subject to the settlement of the Au- all allowances growing out of the postal service; to ntend the disposition of the proceeds of the offices; it all warrants for the payment of moneys into and the Treasury; to receive from the Auditor a quart-

erly statement of the moneys paid out by postmasters ; and to superintend the collection of all debts due the Department, his prerogatives as left were so great as to make him pretty nearly "master of the situation," despite the limitations mentioned.

Hitherto all appointments of postmasters had been made by the Postmaster General. The last clause of the act referred to directed that those whose office commissions amounted to a thousand dollars and upwards per annum, should be appointed by the President, with the advice and consent of the Senate, for periods of four years, unless sooner removed by the President.

It also created the office of Third Assistant Postmaster General, and gave the establishment a greater and competent force of clerks, thus permitting a better classification of the business, greatly facilitating its proper discharge.

VAN BUREN'S ADMINISTRATION—1837 to 1841.

Mr. Kendall continued as head of the Department during more than three-fourths of this Presidency, the early part of which, so far as the postal service is concerned, was mainly notable for the inauguration of the valuable class of conveyance known as

RAILROAD TRANSPORTATION.

The prophecy of Dr. E. Darwin, (in his "Botanic Garden," published in 1791,) that—

"Soon shall thy arm, unconquered steam, afar
Drag the slow barge, or drive the rapid car,"

had so far been verified in the Department's history, by the introduction of steamboat service. Its full realization was now to be effected by railroad conveyance, a class of mail transportation whose magical effects have worked a most gratifying revolution in postal intercourse. Mr. Kendall's early reports revealed his clear foresight of the important improvements about to follow from this new mode of conveyance.

The first statute bearing on the subject of railroad transportation, passed in July, 1838, declared to be post route

roads then or thereafter to be completed, and em-
 the Postmaster General to have the mails conveyed
 if it could be done on reasonable terms, and at an
 not exceeding by more than 25 per cent. what
 transportation in coaches would cost. An act of
 owing year limited the compensation to be given to
 broad for the conveyance of one or more daily

Another of six years later date, which shall be re-
 o further on, divided such roads into three classes,
 ng to their importance as mail arteries, and further
 ed the compensation to be made them. The in-
 n this important branch of the mail transportation
 a by the following statement :

<i>or Ending</i>	<i>Length of Routes. Miles.</i>	<i>Annual Cost. Dollars.</i>
-----	3,714	581,752
-----	7,190	818,227
-----	13,412	1,601,829
-----	27,129	3,849,662
-----	*22,152	2,538,517
-----	23,401	2,707,421
-----	43,727	5,128,901
-----	70,083	9,216,518
-----	74,546	9,053,936

conflagration of the Department building, which
 l on December 15th, 1836, will be alluded to fur-

ay, 1840, after a service of five years, Mr. Kendall
 l to take charge of the "Extra Globe" newspaper
 se, and on the 19th of that month John M. Niles,
 icketicut, who had been an editor, postmaster, and
 States Senator, was commissioned as his successor.

the few months of this gentleman's service, he
 ted an earnest desire to do what was judicious and
 every case presented for his decision.

ISON AND TYLER'S ADMINISTRATIONS— 1841 to 1845.

ral Harrison selected for his Postmaster General,

g off caused by discontinuance of service in the Southern

Francis Granger, of New York, a gentleman of excellent sense, and rapid in the despatch of business ; but his stay in the position was only for a few months, having resigned with nearly all the other members of the Cabinet, early September of that year, in consequence of President Tyler's veto of the bill chartering the United States Bank.

On the 13th of the same month Mr. Tyler commissioned Charles A. Wickliffe, of Kentucky, as the postal chief, a man of much ability, as well as large experience in public affairs. He continued in the position during the remainder of three and a half years of this Presidency.

Since the year 1837 the Department had failed to be self-sustaining, owing to a loss of revenue resulting from the facilities furnished to correspondence and other mail matter by passengers and private express companies conveyed in the railroad cars. The old rates of postage were still in force, creating much public dissatisfaction under the new order of things, and making it an object to smuggle correspondence in violation of the law.

In addition, the success which had attended Rowland Hill's penny-postage system in England, inaugurated about this period, increased the desire for a large reduction in the postage rates of the United States.

Mr. Wickliffe, accordingly, presented to Congress a draft of measures calculated to effect the needed reform. They did not become laws till the last day of his official term, viz : the 3d of March, 1845. The several bills passed on that day cheapening the postages, improving the mode of letting the routes to contract, prohibiting private express companies, and restricting the franking privilege, were so judicious and beneficent, as to make it a memorable one, forming an epoch in the Department's history. Let us glance at the details separately.

REFORM IN THE POSTAGE RATES.

For nearly thirty years the charge for conveying single letters (viz : composed of a single piece of paper) had been from six to twenty-five cents, according to distance, with corresponding additions for each additional piece of paper. If, for instance, a person wished to post a letter containing

ink notes, a distance of more than 150 miles, for the single letter charge was eighteen and three-cents, he was compelled to pay seventy-five cents, measures making it a quadruple letter. The new law is just alterations, basing tariff on weight instead of number of pieces of paper composing a letter. All things over half an ounce were to be regarded as letters, and to be conveyed for five cents for distances exceeding 300 miles, and for ten cents any greater distance. A scale of newspaper rates was also introduced, to increase their circulation, although it did not curtail the charges therefor. By thus reducing the cost of an article which had become one of the necessities in enlightened nations, although not to the extent that by later statutes, it conferred a boon of a very gratifying character upon the social and business interests of the country. Its financial effect, aided by the more economical method of letting a large portion of the routes directed by contract, was to make the Department's receipts, which for many years had not equalled its expenditures, surpass

M IN THE MODE OF LETTING THE MAIL CONTRACTS.

Consequence of the pressure from the passenger and other considerations connected with the protection of the mails, the Department had consented for a long series of years to a burden of which it was hardly capable, by requiring coach transportation on many routes where the great weight of the mails did not really require a higher rate of service than horseback. The new law very properly enjoined it upon the Postmaster General, in all lettings of contracts, to accept the service of the bidder proposing to convey the entire mail over a route "with celerity, certainty, and security,"* with-

and service under this new stipulation having been desired and alluded to thereafter for brevity, in the Department's correspondence and reports by asterisks, (stars,) these bids, namely, for conveyance other than by railroad or steamboat, became and are still known by the familiar name of "star bids."—W. L. N.

out reference to the mode of conveyance. The tendency of this requirement, it will be seen, was to release correspondence from a heavy tax for the transportation of passengers. Its effect in reducing expenditures was shown by the fact that in the first four years of its operation, although the post roads were extended 23,763 miles, the expense of mail conveyance was lessened \$328,000. Owing, however, to the latitude of construction given to the words "celerity, certainty, and security," and to other causes, full effect was not given to this injunction for nearly twenty years after its passage.

CURTAILMENT OF THE FRANKING PRIVILEGE.

To aid in sustaining the reduced tariff of postage referred to, besides providing the more economical mode of letting the routes just mentioned, important modifications were ordered in relation to "free matter" passing through the mails.

The early acts of Congress, including those of 1821, 1827, and 1834, permitted to be conveyed in the mails, free of postage, letters and packets to sundry officers of the Government and members of Congress, under specified restrictions. The present law repealed the prior statutes on the subject, but authorized Government officers previously possessing the privilege to keep an account of the postage paid by them on letters and packets received through the mails on the business of their offices, to be paid out of the contingent fund of their departments or bureaus. It continued the privilege to deputy postmasters for letters of official business, and to members of Congress, the Secretary of the Senate, and Clerk of the House, under specific limitations.

It may be interesting to say here, that the act of 1846 enlarged the privilege of members of Congress in the matter, and made an allowance of \$500,000 per annum to the Department for conveying the free matter of the two Houses, and of the Executive Departments; also, that the statute still (1868) in force on the subject grants the privilege as follows: 1st. To the President, Vice-President, and heads of departments. 2d. To chief clerks of the Exec.

the departments, for official communications. 3d. To members of Congress; also to the Secretary of the Senate, and Clerk of the House, to cover correspondence to and from them; all printed matter issued by authority of either House, all speeches, proceedings, and debates of Congress, printed matter sent to them, and all petitions to either of its branches; the privilege to commence with their official term, and expire on the first Monday in December following such terms. 4th. To postmasters, for communications to other postmasters, on the business of their offices. The privilege is accorded, also, to communications addressed to either of the Executive Departments by an officer responsible thereto. It is restricted to packets not over four ounces in weight, except in the cases of the President and Vice-President, petitions to Congress, Congressional or Executive documents, and publications or books, purchased by either House or Congress, or by a joint resolution of the two; and excepting, also, seeds, cuttings, roots, and scions of such weight as the Postmaster General may authorize.

PRIVATE EXPRESSES.

The acts of 1825 and 1827 contained provisions prohibiting stages, or other vehicles, making regular trips on post routes, or roads parallel thereto, from conveying letters, also the setting up of foot or horse posts on the mail routes by other persons than the Postmaster General or his agents. But, owing to the smallness of the penalties annexed, these measures had been found insufficient, in view of the burdensome postage rates, to prevent unscrupulous individuals from making trips on steamboats or in the railroad cars, after these came into general use, with bundles of unmailed letters, which they conveyed at cheaper rates than the Post Office. To sustain the reduced postage tariff now inaugurated it became an imperative duty, on the part of the lawmakers, to provide a more stringent enactment against the fraudulent practices mentioned. The statute of 1847, still in force, (1868,) accordingly, embodied rigid inhibitions on the subject, enforced by heavy penalties. For establishing a private express on a post route, conveying any mailable matter, except newspapers, pamphlets, magazines, or peri-

odicals, a fine of \$150 was prescribed; and the owners of stage coaches, railroad cars, steamboats, packet boats, other vehicles or vessels, were prohibited from conveying otherwise than in the mail, any mailable matter, with the exceptions specified, under a penalty of \$100. These provisions have continued to prove very effective.

FOREIGN MAILS.

The date referred to, March 3, 1845, so prolific of postal laws, was also that of the introduction of this interesting branch of the Department's service. But it was not until 1849 that a postal treaty with Great Britain was carried into effect; the only foreign postal arrangement previous to that being with Bremen, which was ratified at Washington on March 29th, and at Bremen on June 26th, 1847.

In 1850 a "foreign desk" was instituted, to which Horatio King, Esq., a gentleman conspicuous in the Department for his long experience and energy, was appointed, and the whole business of the foreign mails placed in his hands. It devolved on him to systematize this branch, and under his supervision postal conventions were made with Prussia, France, Belgium, Canada, and a new and much improved convention with Bremen, whereby the rates of postage between the United States and the continent of Europe were reduced fifty per cent., and the arrangements under the British treaty were also greatly extended. The act of 1826 had authorized the Postmaster General to make provision for the receipt of letters and packets intended to be conveyed by ship or vessel beyond sea, such letters to be formed into a mail, and directed to the postmaster of the port to which such vessel might be bound; also to make arrangements with foreign postmasters for the receipt and delivery of letters and packets through the post office. In addition, a joint resolution of June, 1844, empowered him to enter into arrangements with the proper authorities in France and Germany and with the owners of vessels plying between these countries and the United States, for securing a safe and regular direct mail communication, under official guarantee, between this country and Europe, through Bremen, Havre, and other ports on that continent. The

845, "to provide for the transportation of the mail between the United States and foreign countries, and for other purposes," authorized the Postmaster General to make contracts, for periods of not over ten years, for carrying the mails of the United States between any of the ports of any foreign power, whenever, in his opinion, the public interest would be promoted, such contracts to be made with citizens of this country, and the mails to be conveyed in American vessels. It prescribed rates of compensation for the matter they might carry.

Subsequent acts since passed have enlarged and improved upon the provisions in the following particulars: (1.) All letters, or other mail matter, conveyed to or from any port of the United States by any foreign vessels, except unsealed letters, are subject to postage. (2.) The Postmaster General may reduce or enlarge, from time to time, the rates on mail matter conveyed between this and foreign countries, for the purpose of making better arrangements, or counteracting adverse measures affecting our interests with them. (3.) The duration of contracts for carrying the mail by sea is to be limited to two years, when, otherwise, specially directed by Congress, and compensation to the sea and inland postages arising on mail conveyed under the same. (4.) The mails may be transported between the United States and any foreign steamship, allowing as pay the sea and inland postage on letters thereon, if conveyed by an American vessel; sea postage only, if by a foreign one. (5.) Vessels at a port of this country for a foreign one, are permitted to carry letters not regularly mailed or received at the post office at the port of departure. (6.) Vessels owned by citizens of the United States, leaving any port for a foreign one, are required to convey what the Department or any of its agents may offer, for such reasonable compensation as the law allows. (7.) Rates where the postage rates are not fixed by a statute, the uniform postage rate, without reference to the rate, on letters sent to, or received from foreign countries, by vessels regularly employed in transporting

the mails, is ten cents for letters weighing not over half ounce, two cents for a newspaper, and the established rate for pamphlets, periodicals, and other printed matter. (Vessels, owned by citizens of the United States, passing either direction between our own country and a foreign port, are required to convey such printed matter as the Department, or any of our consuls or commercial agents abroad may offer, at such reasonable pay as the law may allow.

The operations of the foreign-mail system for the years 1860 to 1875, are shown by the following table :

[For table see facing page.]

[Under the provisions of the treaty of Berne, which went into effect July 1, 1875, no account has thereafter been taken of the number of letters (or amount of postages collected thereon) exchanged with Postal-Union countries. The weights only of the letters and printed matter are taken for the purpose of making settlements for the conveyance thereof, as well as for the territorial transit of such mails as traverse intermediate countries, before reaching the country of destination.

The total weights of the mails despatched from the United States to Postal-Union countries during the years 1876 and 1877, were—

In 1876—	
Letters	95,984,186 grams ; equal to 3,386,103 ounces
Printed matter and samples	366,552,486 grams ; equal to 12,935,398 ounces
In 1877—	
Letters	91,401,230 grams ; equal to 3,224,427 ounces
Printed matter and samples	377,260,364 grams ; equal to 13,308,887 ounces

W. L. N.

The interest as well as importance of our foreign-mail service has greatly increased of late. Postal treaties of very favorable character were made in 1867 with Great Britain, Belgium, the Netherlands, the Swiss Confederation, the North German Union, Italy, and the Colonial Government of Hong Kong. Postmaster General Randall gives the opinion that the effect of these treaties, and the co-

Year ending June 30.	LETTERS.		NEWSPAPERS, &c.		Gross Postages arising from letters, &c., exchanged.
	Received.	Sent.	Received.	Sent.	
1860-----	*3,072,979	3,093,390	1,338,207	2,127,870	\$*1,376,402 25
1861-----	*3,059,700	3,086,121	1,033,633	2,434,357	*1,362,036 70
1862-----	*2,556,624	2,644,039	848,312	2,549,756	*1,144,095 82
1863-----	*2,720,236	2,882,795	916,426	2,331,761	*1,224,675 21
1864-----	3,425,974	3,508,456	1,088,726	2,457,841	*1,399,605 69
1865-----	3,486,346	3,915,259	1,186,822	2,905,323	1,819,928 56
1866-----	4,543,630	4,866,916	1,381,724	2,804,442	2,289,219 30
1867-----	6,388,833	6,715,401	1,871,710	2,936,599	2,441,242 52
1868-----	6,466,225	7,138,307	Not reported.	Not reported.	2,153,690 66
1869-----	7,457,796	8,138,858	Do.	Do.	2,014,183 15
1870-----	8,605,226	9,754,152	Do.	Do.	1,964,564 48
1871-----	9,834,130	10,461,868	Do.	Do.	1,735,266 32
1872-----	11,588,436	12,774,064	*660,981 lbs.	*627,803 lbs.	1,871,257 25
1873-----	13,126,511	14,332,674	*740,094 "	*637,964 "	2,021,310 86
1874-----	13,693,056	14,885,989	*800,746 "	*730,320 "	2,054,803 81
1875-----	12,281,248	12,854,333	*817,464 "	*700,489 "	1,713,766 90

* Embracing United States and European mails only. For weight of letters, &c., in 1876 and 1877, see next page.
 NOTE.—This and the following tables have been extended from 1868 to 1878, by the Editor, for convenience in presenting a continued view of the subject.

tracts recently made for the Atlantic service, will be wipe out the large balances against the Department account of the foreign service which have burdened it many years, and create an annual one in its favor, to its finances.

Exchanges are made, at present, by direct mails, and the provisions of postal conventions with Great Britain and Ireland, France, Algeria, Belgium, North German Union, Bremen, Hamburg, Netherlands, Italy, Switzerland, Canada, British North America, Mexico, Guatemala, Venezuela, and the Colonial Government of Hong Kong. Direct mail-steamship communication is maintained between the United States and Brazil, Central America, the Bahamas, Bermudas, the West India Islands, British Columbia, the Sandwich Islands, Japan, and China.

By means of the steam-mail packets of Great Britain etc., used as intermediates, we hold postal communication also with Russia, Poland, Norway, Sweden, Denmark, Holland, Spain, Portugal, Austria, Greece, Turkey, Syria, Egypt, the northern and eastern coasts of Africa, the islands of the Mediterranean and the Indian Ocean, Peru, Bolivia, Chili, and about thirty other countries.

Joseph H. Blackfan, Esq., Superintendent of Foreign Mails,* appointed as such in 1868, has managed, with eminent fidelity, this important branch of the Department's business.

POLK'S ADMINISTRATION—1845 to 1849.

Cave Johnson, of Tennessee, who had held a seat in the House of Representatives for many years, was the chief of the Department throughout this Presidency, having taken the reins on the 6th of March, 1845. He was a man of unpretending demeanor, engaging manners, and respectable talents. As he had been considered parsimonious while

* The office of Superintendent of Foreign Mails was created by act of July 28, 1868, prior to which, from March, 1854, on the promotion of Mr. King to the office of First Assistant Postmaster General, Mr. Blackfan had been the corresponding clerk of the "foreign desk," which, however, remained under the general supervision of Mr. King until his resignation as Postmaster General, on the 4th of March, 1861.—W. L. N.

ness, owing to his vigilance in guarding the Treasury against all fraudulent and extravagant claims, it was as he would prove illiberal in his new position. These provisions were not realized. Although he closely scrutinized all propositions enlarging the Department's expenses, he firmly evinced a liberal disposition toward applications calculated to improve the service.

On March 3d, 1847, authorized the transportation of mails between New York and Liverpool, Charleston, Havana, and Aspinwall, and between Panama, San Francisco, and Astoria, in steam-packets built by private individuals, liable to be claimed by the Government, in case of war purposes, the Navy Department bearing one-fourths of the expense of the service. These and other mail routes were kept in operation on this plan for several years, but were finally abandoned.

He was engaged in effecting needed arrangements for giving the efficiency to the foreign service, in the summer of 1846, when Mr. Johnson despatched to Europe his ex-acting assistant, Major Hobbie, with authority to enter into international postal arrangements, who succeeded in negotiating a postal treaty with one of the German States, of benefit to both countries. In 1847 the Department transferred its postal service over the young State of Texas, and to the Union the year previous. In August, of the following year, Congress directed a similar extension to the Territories of California and Oregon.

THE STAMPS, ENVELOPES, AND POSTAL CARDS.

To facilitate the payment of postage, and otherwise to accommodate the public, the use of *postage stamps* had been introduced in Great Britain in 1840, as a part of the great postal reforms instituted in that year, including the "postage."

The statute of March 3d, 1847, Congress authorized the introduction into our postal system. Stamped envelopes which possessed the advantage of authorizing for the conveyance covered a conveyance outside of the mails, were adopted a few years later.

In extent to which these valuable facilities have been shown by the following table :

POSTAGE STAMPS, ENVELOPES, AND POSTAL CARDS ISSUED.

Exclusive of those for the official use of the Departments.

Year ending June 30.	Postage Stamps.	Stamped Envelopes.	Stamped Newspaper Wrappers.*	Postal Cards.†	Total.
1860	\$5,920,939 00	\$949,377 19	-----	-----	\$6,870,316 19
1861	5,908,522 60	781,911 13	-----	-----	6,690,233 73
1862	7,078,188 00	733,255 50	\$23,648 50	-----	7,835,092 00
1863	9,683,384 00	634,821 00	20,545 00	-----	10,338,750 00
1864	10,177,327 00	765,512 50	31,490 00	-----	10,974,329 50
1865	12,099,787 50	724,135 00	23,315 00	-----	12,847,237 50
1866	10,816,681 00	1,151,507 25	20,500 00	-----	11,988,688 25
1867	11,578,607 00	1,785,301 00	37,155 00	-----	13,401,063 00
1868	11,751,014 00	2,044,738 00	67,372 00	-----	13,863,124 00
1869	12,722,568 00	2,283,588 50	71,905 00	-----	15,078,061 50
1870	13,976,768 00	2,381,409 00	98,605 00	-----	16,456,782 00
1871	14,630,715 00	2,866,656 25	132,180 00	-----	17,629,551 25
1872	15,840,649 00	3,054,826 50	175,152 50	-----	19,070,628 00
1873	16,681,189 00	3,267,079 50	140,567 50	\$310,940 00	20,399,776 00
1874	17,275,242 00	3,661,690 70	220,502 06	910,790 00	22,068,224 76
1875	19,087,381 47	3,837,797 60	286,679 74	1,076,160 00	24,288,018 81
1876	19,718,708 75	4,359,897 04	273,723 50	1,508,150 00	25,860,479 29
1877	19,182,281 10	4,351,569 76	265,362 00	1,700,155 00	25,499,367 86

TABLE I. 1897

The law above referred to authorizes the sale of postage stamps, in quantities of not less than \$500 in value, at not exceeding 5 per cent. discount, and of stamped envelopes packages containing not less than 500, at a similar deduction. It has not, however, been found expedient to sell them in this way except through designated agents in large cities, to whom they are furnished at two per cent. discount.

AYLOR AND FILLMORE'S ADMINISTRATIONS— 1849 to 1853.

Jacob Collamer, a representative in Congress from Vermont, and who in later years was United States Senator, took charge of the postal portfolio under a commission of the 8th of March, 1849. His talents were of a high order, although not showy, his private character most estimable. He remained in office only about sixteen months, the accession of Mr. Fillmore, in July, 1850, having led to the formation of a new Cabinet. During the fiscal year ending on the first of that month, the receipts of the establishment exceeded its expenditures \$287,031.43.

Mr. Fillmore selected (July 23, 1850) for his Postmaster General, his law partner, at the time a member of the lower House, Nathan K. Hall, of New York, who proved a very energetic and capable officer. He was in the prime of life, and ambitious to make his administration a success.

Through his efforts Congress was induced, in March, 1851, to reduce the postal charge on single prepaid letters from five to three cents when going not over 3,000 miles, and to make a large curtailment in those for newspapers sent to regular subscribers, and for other printed matter. The charge on transient papers was increased. The act allowed the Department \$500,000 for the transmission of franked matter, which, added to the grant of \$200,000, made for a like purpose in 1847, made the entire compensation for such service \$700,000 per annum, which it has continued to draw from the general fund.

The increased charge on transient newspapers failing to give public satisfaction, and postmasters complaining that the variation in the rates for printed matter under a graduated scale of distances augmented their labor, an act was

passed in August, 1852, which discarded these objectionable features, and reduced the already moderate charges on such matter one-half, when prepaid quarterly or yearly.

PIERCE'S ADMINISTRATION—1853 to 1857.

James Campbell, of Pennsylvania, was called to the postal chair on the 7th of March, 1853, and held the office until the end of President Pierce's term.

It has been stated that the law authorized, down to 1810, a single Assistant Postmaster General; thence until 1836, two; and from the latter date three. An act of March 3, 1853, provided that future appointments to these positions should be made by the President and Senate.

At Mr. Campbell's suggestion laws were enacted in March, 1855, requiring prepayment of postages in all cases not coming within existing postal arrangements with foreign countries. This was an important improvement, as was also the one I shall now notice, viz :

THE REGISTRATION OF VALUABLE LETTERS.

With a view to the greater security of letters containing money and other articles of value, through special provisions for their careful treatment, Mr. Campbell recommended, in his report of 1854, a plan for their registration, on the application of parties and the payment of a fee of five cents—a plan which was legalized on the 3d of March following. It sought to fix responsibility and furnish means, not previously existing, for tracing a missing letter from the point of its reception to that of its disappearance.

The main features of the plan were these: 1st, a receipt was to be given for valuable letters when posted, duplicates of which receipts were to be kept for reference at the mailing office; 2d, the full addresses of such letters were to be entered on a separate post bill, which was to be copied in a book of registered letters sent, and then forwarded in a sealed envelope, separate from the package of letters to which it related; 3d, the receipt of this post bill was to be acknowledged at the office of destination by a duplicate returned to the mailing office, marked correct, or otherwise as it might be found on comparison.

The system not having proved remunerative during the first few years of its operation, the registration fee was raised to twenty cents in 1863, which was probably too large an advance. One of ten cents would have been more judicious. As doubts have been expressed in high quarters in relation to any additional security to packages by registration, I have to remark that since the Department commenced sending its packages of letter stamps and stamped envelopes on this plan, a loss of the same in the mails has seldom occurred; whereas when they were mailed without such protection the losses were frequent. In July, 1868, changes were made in regard to registered letters which greatly increased their security. By a system of receipts and new accounts, personal responsibility is fixed on postmasters and other agents of the Department handling such packages, so that very few losses now occur.

The system of compulsory prepayment of postages, adopted in 1855, was extended as well as improved, by an act of January 2, 1857, requiring such prepayment on transient matter.

BUCHANAN'S ADMINISTRATION 1857 to 1861.

Aaron V. Brown, of Tennessee, who had held a seat in Congress, and been Governor of his State, took charge of the Department on the 6th of March, 1857. He early manifested a determination to give the country a very liberal amount of mail service, particularly the new Territories in the West. With this view he placed under contract many long routes to connect the western States with the Pacific coast, which resulted in a financial burden beyond the ability of the Department to sustain without a heavy subsidy from Congress. His financial policy was far from being a safe one.

Mr. Brown having died, after a service of two years, Joseph Holt, of Kentucky, at the time Commissioner of Patents, became Postmaster General on the 14th of March, 1859. The views of this enlightened postal chief with regard to the proper financial course of the Department differed widely from those of his predecessor. He held that the funds should be drawn on for the support of mail

routes only in proportion to the postal yield of the offices they supported, and that the self-sustaining policy on which it had been conducted during the first forty-five years of its existence should continue to prevail. He contended that the postal revenues were the common property of the nation, and should be disbursed on the principle that every community had a right to demand, either for the increase or acceleration of its mails, a larger portion of them than its correspondence would entitle them to. To show how the funds of the Department had been misappropriated under a contrary policy—through Congressional directions to keep in operation routes of little importance for mail purposes, although useful for other national objects—he specified six of this character in the western Territories, where mail transportation on which exceeded the postages accruing therefrom by \$1,178,629.13 per annum.

Mr. Holt having been transferred to the War Department in January, 1861, his First Assistant, Horatio Kimball of Maine, (who had entered the Department, in 1839, as a clerk,) was appointed his successor, his commission dating from February 12, 1861. The industrious and methodical habits of this gentleman, and his long service, were well adapted to fit him for his new position, which, however, he held but a few weeks, owing to the incoming of a new President.

In consequence of the immense outlays, resulting from the large increase of the railroad and foreign transportation, as well as from the organization of long and unproductive routes on the Pacific coast, the Department's expenditures during Mr. Buchanan's administration exceeded its revenues by \$21,745,021.16.

LINCOLN'S ADMINISTRATION—1861 to 1865.

Montgomery Blair, of Maryland, was the individual selected by this distinguished Chief Magistrate to take charge of the Department, entering upon his duties March 5, 1861. He proved a very practical postal chief, and his mark very visibly. During the three and a half years of his management the large and long existing annual deficits in the postal revenue were almost entirely overcome.

three causes helped to this result, viz : 1st, the discontinuance of mail service in the disloyal States; 2d, the vast increase of correspondence in the loyal States; 3d, Mr. Blair's firmness in executing the law of 1845, requiring the Postmaster General to let the routes, in all cases, to the lowest bidders offering to convey the entire mails "with celerity, certainty, and security," without reference to the mode of their conveyance.

POSTAL CONVENTION AT PARIS.

Mr. Blair was of the opinion that our foreign postal system, as then in operation, was too loose as well as complex, there being no recognized international rates of postage for either sea or land conveyance, nor any standard weight for foreign letters; also, that it was hardly possible to correct these evils without concert of action among the Powers interested. He, therefore, through representations to the Department of State, etc., set on foot measures for convening an International Postal Conference, which commenced at Paris in May, 1863, where the Hon. John A. Kasson, First Assistant Postmaster General, appeared as the United States delegate, and took a leading part in the deliberations. This important conference was attended by delegates from twelve of the European and three of the American nations. The principles which it adopted, and the information its discussions elicited with respect to the various foreign postal establishments, in addition to their direct service to our Department, operated as a stimulus to further postal reforms.

FREE DELIVERY SYSTEM.

The act of 1825 provided for the delivery of letters in cities by carriers at such offices as the Postmaster General might direct, at a cost of two cents each to the persons receiving them. That of 1836 extended this facility so as to include the delivery of newspapers and pamphlets at half cent, and the deposit of letters in the post offices at two cents each. Another act of 1851 further enlarged it by authorizing the establishment of suitable places of deposit

for drop-letters, at a charge of two cents each to the person receiving or sending them.

In 1863 a modification, of immense value, was made of Mr. Blair's suggestion. He had become convinced from the remarkable results attending the free delivery of mail packets in some of the European cities, that a similar facility on this side of the Atlantic would secure like results. He had observed, also, that postal communication uniformly augments with the facility for its exercise. The law of March of that year authorized the Postmaster General, whenever the public convenience appeared to him to require, to establish in cities having a population of 50,000 and in such other places as he might direct, one or more branch post offices, also pillar or other receiving boxes, for the safe deposit of matter for the mails, and for delivery to the residents thereof; also, to have the delivery made by letter carriers as frequently as the public convenience in such places might demand. The effect has been in 48 of our principal cities, where the improvement has been introduced, to bring the post office delivery to the doors of citizens, and to supplant, to a large extent, the general box delivery at the city offices. The popularity of the measure is clearly illustrated by the statement that, in 1868, the carriers in said cities numbered 1,198, who delivered 64,349,486 mail and 14,081,906 local letters, also 16,910,715 newspapers, and collected 63,164,625 letters. The carriers' salaries for the year and other incidental expenses of the system amounted to \$995,934.59; the postages arising from the local matter were \$475,982.36. It is believed that the saving of clerk hire at the city post offices, and increased postages resulting, will nearly defray the cost of this great boon.

The third of the reforms alluded to consisted in the

RAILWAY MAIL SERVICE.

The Department had, for a long series of years, employed what are known as route agents—virtually traveling postmasters—on the leading railroad routes, to hand out and receive the mail pouches at the way offices, and to place in the mail the packages received at the post office cars. M

ir inaugurated, in 1864, an additional agency on a of the trunk lines of this class, with the view of giving expedition to the mails equal to that to passengers, by ting and distributing them while on their passage, instead of sending them to the large terminal post offices for a purpose, where they suffered a delay of from 12 to 24 ars.

Before the introduction of railroads, and while the coun- was sparsely settled, the consolidation and reassortment, special points, of the mails arriving from different directions was a matter of necessity, and the delay thus experienced did not create complaint. But, after the introduction the iron horse, and close railway connections at the large wns, letters sent by private hands so far outstripped those ing through the mails and detained for this reassortment, to give rise to constant complaints. The law of March th, 1864, authorized the Postmaster General, from time time, to appoint clerks on the railway routes to distribute ters and other mailable matter. The experiment was st made between Washington and New York, by clerks nporarily withdrawn from the large post offices on the e, which resulted in a great gain of time. Since then, whatever lines the new system has been introduced, like ults have been effected. In November, 1868, there were of these postal railway and steamboat lines in operation, regating in length 70,019 miles, and employing 279 rks, at a cost of \$329,700 per annum, or double what ute-agency service would have cost. As, however, a large ount of clerical force is dispensed with at the distribut- g offices by the new system, little or no increase of net pense results from its introduction. An additional ad- ntage arising from this expediting of the mails grows t of the increase in the number of letters posted on such es.

POSTAL MONEY-ORDER SYSTEM.

Mr. Blair's administration has also the credit of originat- g this great improvement. To accommodate soldiers and bers wishing to remit small sums of money, he advised incorporate in our postal system, as had been done long fore in that of Great Britain, a plan for furnishing ap-

plicants with money orders, for a small fee. According to the act of May 17, 1864, which was carried into effect on the 1st of November following, authorized the Postmaster General to establish, under such regulations and rules as he might deem expedient and necessary, a uniform money-order system at all post offices which he might deem suitable therefor, for the transmission of sums not exceeding \$30, (which limit a later statute has raised to \$50.) Besides furnishing a safe and cheap agency for the transmission of small sums, this system has the effect, from its tendency to exclude money from the mails, of rendering more secure the ordinary correspondence, which usually shares in the damage inflicted on the mails by depredators. The safety given to funds by transmission through postal-money orders is secured by omitting from the orders given to depositors the names of the latter, as well as those of the persons in whose favor they are drawn, and by sending to the paying postmaster a letter of advice of the same number, amount, and date, as the corresponding order, furnishing that information.

The charge for an order of not over \$20 is ten cents, and for a larger one twenty-five. An order becomes invalid a year from its date. In case of its loss a duplicate is given without charge, on the application of either the remitter or payee, and his making the required proofs.

As a basis of operations the designated money-order offices are instructed to transfer from any postage funds in their hands a specified sum (varying from \$50 to \$1,000) to be held as a reserve for the payment of such orders. In case this becomes exhausted the postmaster is authorized to make a second transfer equal to the amount of his reserve. If the postage funds in his hands are insufficient, or are exhausted by a succession of transfers, he is furnished with a letter of credit on the postmaster of New York, to which office all surplus money-order funds from all the smaller offices are ultimately remitted, and there accounted for.

At the inauguration of the money-order system only 133 offices were allowed to issue orders. Its subsequent progress and popularity is here shown :

PROGRESS OF THE MONEY-ORDER SYSTEM.
Money-Order System of the United States put in operation November 1, 1864.

Year ending June 30.	Number of Money- Order Offices.	Number of Domestic Orders issued.	Amount of Orders Issued.	Fees received.	Expenses of the System.	Surplus.
1865-----	141	74,277	\$1,360,122 52	\$11,536 40	\$18,584 37	*
1866-----	473	243,609	3,977,259 28	35,803 06	28,664 27	\$7,138 79
1867-----	832	474,496	9,229,327 72	70,889 57	44,628 96	26,260 61
1868-----	1,223	831,937	16,197,858 47	124,503 19	70,345 04	54,158 15
1869-----	1,468	1,264,143	24,848,058 93	176,247 87	110,694 00	65,553 87
1870-----	1,694	1,671,253	34,054,184 71	235,557 05	145,382 42	90,174 63
1871-----	2,076	2,151,794	42,164,118 03	295,563 38	194,381 60	101,181 78
1872-----	2,452	2,573,349	48,515,532 72	350,499 40	244,521 63	105,977 77
1873-----	2,775	3,355,686	57,516,216 69	354,816 66	286,232 68	68,584 00
1874-----	3,069	4,420,633	74,424,854 71	462,238 54	357,040 42	105,198 12
1875-----	3,401	5,006,323	77,431,251 58	494,717 27	374,575 18	120,142 09
1876-----	3,697	4,998,600	77,035,972 78	647,021 52	456,250 68	†190,770 84
1877-----	3,686	4,925,931	72,820,509 70	624,400 66	524,478 47	96,931 19

* Deficit of \$7,047.97 at close of fiscal year 1865.

† Schedule of fees increased July 1, 1875.

In estimating the surpluses stated in the last column of this table, certain expenditures for clerk hire, stationery, blanks, &c., for the money-order system have not been charged.

POSTAL CONVENTIONS WITH FOREIGN COUNTRIES FOR EXCHANGE OF MONEY-ORDERS.

That with Switzerland went into operation September 1, 1869.

That with the United Kingdom of Great Britain and Ireland, October 1, 1871.

That with the German Empire, October 1, 1872.

That with the Dominion of Canada, August 2, 1875.

That with the Kingdom of Italy, July 2, 1877.

C. F. Macdonald, Esq., an accomplished and experienced officer of the Department, has had charge of the money-order system from the date of its initiation.

DEAD LETTERS.

The act of 1825 made it the duty of postmasters to publish quarterly, or oftener, whenever the Postmaster General might so direct, in one of the newspapers published nearest their places of residence, for three successive weeks, a list of the letters remaining in their offices; or, instead thereof, to make out and publish such list at prominent places in their vicinity; also, at the expiration of the next three months, to forward the letters remaining on hand as "dead" to the General Post Office, there to be opened and inspected. It directed the Postmaster General to return to the writers such of said letters as enclosed matters of value, or to cause descriptive lists thereof to be inserted in one of the newspapers published at the place most convenient to the supposed residences of their owners. Such letters, and their contents, were to be preserved and delivered to the persons addressed, upon the payment of the postage and the expense of publication. If the letters contained money, it might be appropriated to the Department's use, to be paid to the rightful claimants when found.

Although several modifying statutes were enacted during

a succeeding 35 years—having reference principally to the frequency and mode of advertising unclaimed letters—the main features of the act of 1825 continued to govern the Department in regard to the disposition of them.

An act of 1860 provided that letters indorsed with the writers' names, and a request for their return if not called for within thirty days, or a time specified, should be returned by mail to them, such letters not to be advertised, or treated as "dead," until after having been so returned to the post offices of the writers. Another of 1862 authorized the return to the writers of all dead letters except those containing circulars, or other worthless matter, if the postage thence accruing would defray the clerical expenditure necessitated by such proceeding. A subsequent law of 1866 required the return of dead letters to their writers without postage charge.

Owing to the migratory habits of our citizens, the great extent of country embraced by our mail system, and the frequent imperfections and mistakes occurring in the address of correspondence, the annual accumulation of unclaimed letters has continued to be very large, amounting for the year ending June 30, 1867, to 4,306,508 letters, or something less than one in every hundred passing through the mails. In late years the Department has made vigorous and successful efforts to reduce the number, as well as to improve the entire dead-letter system. In diminishing their number the printed request on the envelopes, for return of letters not called for within a specified period, has proved highly effective, especially in the more densely settled portions of the country. The free delivery system lately introduced in the cities has had a similar tendency.

Among other improvements in the system deserving of notice are an amplification of the statistical records, so as to cover all important details, and a more thorough classification of the letters received, and of their inclosures. Such additional safeguards of valuable letters, as experience has suggested, have been provided, and every available means used to secure the speedy return to writers of the mailable matter sent to the Department for final disposition.

When received in the Department the dead letters, after

being opened, with all possible precautions against injury to their contents, by a few clerks specially assigned to this duty, are disposed in two general classes.

Those letters found to contain money or valuables are carefully examined and their contents noted and registered. The others, tied up in bundles, are handed to a large force of female clerks (65) to ascertain from them such information as will facilitate their return to the writers, and transmit them accordingly.

The variety of miscellaneous articles found within dead letters is remarkable, and sometimes amusing.*

[A relative decrease in the annual number of dead letters containing money and valuables, may fairly be attributed to the introduction of the system of registered letters in 1854, that of return-request letters in 1860, and the money-order system in 1864.

The decrease for the year 1877, in the number of letters without inclosures returned to their writers, is accounted for by the reduced appropriation allowed by Congress which necessitated the discharge of some of the clerks previously engaged in that work.

As a curious fact in mental perversity, it may be stated that annually a number of letters are found in the mail without any address whatever: for the years 1869, '70, '71, '72, '73, '74, '75, '76, and '77, these numbers were 2,671, 3,016, 3,518, 4,641, 4,622, 3,857, 5,963, 6,945, and 7,020.—W. L. N.

The following is an exhibit of dead-letter operations for the years 1860 to 1877 :

* Mr. Leech gives a resumé of some of these articles, which is unnecessary here to particularize, ranging as they do from bulkier inclosures of boots, shoes, coats, shawls, bedquilts, hoop-skirts, live rattle-snakes, horned toads, &c., &c., to the more fragile and manageable items of gloves, lace collars, nightgowns, photographs, jewelry, chignons, and other paraphernalia of gentler sex.—W. L. N.

Year Ending June 30.	No. of Letters received in Dead-Letter Division.	OF THESE ARE		MONEY LETTERS DELIVERED TO OWNERS.*		Letters destroyed as not deliver- able or worth- less.†	Letters with- out inclos- ures deliv- ered.
		Foreign let- ters ret'd unopened.	Domestic money let- ters.	Number.	Contents.		
1860-----	2,000,000	110,911	10,450	9,206	\$50,420 63	Not Rep'd	Not Rep'd
1861-----	2,550,000	111,147	10,580	8,998	46,880 26	"	"
1862-----	2,282,018	160,432	10,475	8,766	41,068 47	"	"
1863-----	2,550,416	137,145	18,527	15,048	63,627 72	"	"
1864-----	3,508,825	162,591	25,752	20,059	104,665 84	"	"
1865-----	4,368,087	167,449	58,863	35,268	210,954 90	"	"
1866-----	5,198,605	193,754	46,648	39,123	221,066 19	3,540,240	1,220,957
1867-----	4,306,508	186,189	35,135	28,949	130,620 52	2,490,080	1,421,871
1868-----	4,162,144	184,183	32,422	28,574	89,759 36	2,070,153	1,762,668
1869-----	3,952,862	193,186	32,550	27,753	85,359 19	1,188,693	2,003,524
1870-----	4,152,460	220,415	45,315	38,606	82,174 94	1,908,704	1,487,021
1871-----	4,194,748	221,673	33,533	29,495	77,515 80	2,173,984	1,334,303
1872-----	4,241,374	244,660	31,515	24,929	61,282 73	2,294,575	1,210,507
1873-----	4,402,348	268,420	31,048	15,142	43,895 58	2,533,482	1,421,125
1874-----	4,601,773	253,300	32,480	20,257	59,861 41	2,622,619	1,020,171
1875-----	3,628,808	210,377	30,927	24,218	47,601 33	2,386,720	1,338,619
1876-----	3,542,494	195,800	25,740	22,709	36,376 16	1,835,472	1,069,307
1877-----	3,288,290	182,521	24,580	20,884	37,952 62	2,025,413	674,793

* Exclusive of letters containing commercial paper, as drafts, &c.

† These, in great part, consist of mere circulars.

COMPENSATION OF POSTMASTERS.

Prior to 1864 postmasters had been compensated for their services by a percentage on the receipts of their offices, designated "commissions." The last law prescribing rates of this character was passed about ten years previously. The rates allowed varied from 15 to 70 per cent., the higher ones applying specially to the first \$100 of income, and the lower ones to receipts in excess of that sum. On the 1st of July of that year, at Mr. Blair's suggestion, a radical change was directed by law through the substitution of *specified salaries* for such varying amounts of percentage; these salaries to be arranged under a graduated scale, based on the sums received as commissions by the respective offices during the two years prior to the 1st of July, 1864. They were arranged—with the exception of the postmaster at New York, who was to receive \$6,000 a year—in five classes, as follows: Those of the first class to range between \$3,000 and \$4,000; of the second, between \$2,000 and \$3,000; of the third, between \$1,000 and \$2,000; of the fourth, between \$100 and \$1,000; of the fifth, not to exceed \$100.

In the first classification made under the law, only 52 postmasters fell under the first class, 209 under the second and 392 under the third. As might be anticipated, the labor expended in making up the accounts at the post-offices, as well as in examining them at the Department, is much simplified, as well as lessened, under the new system. The classification is required to be revised every two years.

[During his administration, Mr. Blair had, in common with his energetic First and Second Assistants, John A. Kasson and Geo. W. McLellan, seen the want of a system of maps to show the relative positions of post offices and the post routes, over the vast area of the United States.

The officers and clerks of the Department, for the correct preparation of the mail advertisements and lettings, and for their constant references, required numerous sets of maps, adapted to their varying wants.

No sufficient provision for the supply of these had hitherto existed, excepting that the topographer of the Depart-

ent, Mr. Henry A. Burr, had, in the year 1839, compiled a single edition of sheets of some of the States (engraved and printed in England) which had speedily become obsolete.

Mr. Blair, in 1863, on the death of the above-named gentleman so long acting as topographer,* (since 1836,) assigned, in his appointment of a successor, (W. L. Nicholson,) the taking up anew of this arduous problem, to design, compile, and publish a series of post-route maps, at the same time providing for the necessary assistance.

This work has since then been carried out, as a constituent and essential aid in the operations of the Department.]
—W. L. N.

Political considerations having led to the retirement of Mr. Blair, ex-Governor Wm. Dennison, of Ohio, succeeded him on the 24th of September, 1864. He proved a most tentative and upright public officer. His views in relation to the financial policy proper for the establishment, were in accordance with those of Mr. Holt already alluded to. His report of 1865 exhibited for the fiscal year ending on the 1st of July previous, an excess of income over expenditure of \$861,430.42, being the first showing of this gratifying description issued from the Department in a long series of years.

JOHNSON'S ADMINISTRATION—1865 to 1869.

Mr. Dennison continued in office after Mr. Johnson's accession to the Presidency, (April 15, 1865,) till July, 1866, at the 25th of which month, a divergence in their views regarding to some questions of public policy having induced his withdrawal, Alex. W. Randall, of Wisconsin, at the time first Assistant, took charge of the Department.

There was a remarkable increase in the correspondence

*The designation of topographer of the Department is first found in a law of 1836, and the office was confirmed in the Revised Code, act of June 8, 1872. For some time previous to 1836, Capt. W. H. Swift, a distinguished officer of the United States engineer corps, rendered assistance towards the surveys and mapping of the post routes.

of the loyal States during the recent war, as will be seen from the following statement :

Postal revenue from the entire Union, for fiscal year ending June 30th, 1861.....	\$9,049
Postal revenue from the loyal States, for fiscal year ending June 30th, 1864.....	12,438
For fiscal year ending June 30th, 1865.....	14,556

The close of the war having necessitated a restoration of the postal service in the Southern States, the Department made vigorous efforts in 1865 to effect this desirable object. To aid in the matter it sent special agents to that section and notified the Provisional Governors of its readiness to appoint postmasters, on their recommendation.

In his annual report of December, 1865, Mr. Denham reiterated the doctrine of Mr. Holt, in reference to the adherence on the part of the Department to the self-sustaining policy on which its affairs had been conducted for nearly half a century, but so widely departed from during the preceding 20 years. He was of the opinion that, as an economical policy, it could not only pay its way year to year, but enlarge its usefulness in all its legitimate functions. Like his predecessor referred to, he contended that the expenditure for sustaining routes, put in operation for national objects, in so far as they were not post-offices in their character, should be a charge on the public Treasury. To illustrate the burdens devolved upon the Department independent of the heavy one for transporting free mail beyond what it was compensated for—he specified that in the new territories, the mail conveyance on the routes exceeded by \$1,135,819.55, the postage yield of the routes supplied by them.

An act of June, 1866, provided that prepaid and dead letters should be forwarded, on the request of a postmaster, dressed, from one post office to another without additional postage, and that dead letters should be restored to their writers without charge. It also authorized a readjustment of the salaries of postmasters of the two lowest classes (the fourth and fifth,) in cases where the quarterly report showed that their salaries were ten per cent. less than would be under the law of 1854, fixing the commission of postmasters.

TELEGRAPH LINES.

In Great Britain the telegraph lines have been associated with the post office establishment, and the subject of connecting the two in this country has attracted much attention.

It has been estimated that a million of dollars would not exceed the average sum diverted from the United States post office by the telegraph, since its introduction into general use. Whether a rival mode of communicating intelligence, which bids fair to become increasingly so, as its charges may be from time to time reduced, should remain in private hands, becomes therefore a national question of great interest.

On the 24th of July, 1866, an act was passed providing that the United States might, at any time after five years from that date, purchase for postal, military, or other purposes, all the telegraph property and effects of any or all of such companies, at an appraised value, to be ascertained by five competent disinterested persons, two of them to be selected by the Postmaster General, two by the companies interested, and one by the persons so selected.

Recent action of Congress, however, indicates an opinion on its part that it would be better to leave the business of telegraphing in the hands of the companies. This view will probably continue to prevail.

LETTINGS OF MAIL CONTRACTS.

The contracts for the inland service are let, as a rule, for four years, (with occasional supplementary lettings running for twelve months.) As one of the geographical sections—northern, middle, southern, and western—into which the contract office divides the Union for this purpose, is placed under new service on the 1st of July of each year, the entire circle is thus kept in constant motion.

The law makes it the duty of the Postmaster General, before advertising for proposals for the transportation of the mail, to form the best judgment practicable as to the mode, time, and frequency of transportation desirable on each

route, and to advertise accordingly. It directs that the proposals for contracts shall be delivered to the Department sealed, and kept sealed until the biddings are closed, and shall then be opened and marked in the presence of the Postmaster General, and one of his assistants, or in that of two of the assistants; also that an abstract of the bids received, containing the names of the parties offering and the terms and duration of the proposed contracts, shall be recorded in a well-bound book. No proposal is allowed to be considered unless accompanied by a guaranty signed by one or more responsible persons, undertaking that the bidder will, if his bid be accepted, enter into an obligation, in such time as may be prescribed by the Postmaster General, with good and sufficient sureties, to perform the service proposed.

In but few cases is any discretion left to the Department, as to the bid to be accepted; the requirement of the law being that the contracts shall be awarded to the lowest bidders, whose bids comply with the conditions of the advertisement under which they are sent in, and provided they are accompanied with proper guaranty. After the proposals have been examined and recorded, the awards are announced to parties interested, who may be present. To all accepted bidders a written notice is forthwith forwarded, which is followed soon after by forms of contract to be executed in duplicate, one copy of the same to be retained in the Department, the other to be lodged with the Auditor, as authority for making payments under the contract, no part of which can issue till this is done.

COLLECTION OF THE DEPARTMENT'S REVENUE.

No money has been sent direct to the Department within the last thirty or forty years. Furthermore, scarce any of its revenue is paid into or out of the National Treasury, except constructively, being absorbed by the deposits and payments made by postmasters under its orders. To effect its collection and disbursements the post offices are classified as depositories, deposit, draft, collection, special and mail messenger. These numbered for the fiscal year ending June 30, 1867, as follows, respectively, viz:

he depositories. (67.) The postmasters of these are directed to receive and retain, subject to the drafts of the department, their own funds and those of certain adjacent offices.

Deposit offices. (680.) A portion of these deposit their moneys with the Treasurer and Assistant United States Treasurers, which amounted in that year (1867) to \$3,299,442. The others deposited with the 67 depositories 7,927.34.

Draft offices. They hold their proceeds subject to special drafts issued by the Third Assistant Postmaster General, which, with the payments made by the depositories on similar drafts, amounted in 1867 to \$2,447,009.40.

The collection offices, by far the most numerous class, pay their receipts on collection orders, drawn on them by the Auditor, in favor of mail contractors. These footed for said year \$7,857,716.47.

Nearly one-sixth of the entire number of offices are known as *special* and *mail messenger*, and pay their avails to the carriers who furnish them with the mail. Their payments amounted to \$339,397.19 in the year mentioned. In short the Post Office Department, under the provisions of the reorganizing statute of 1836, is virtually its own treasurer and cashier, the Auditor being its accountant. Its financial system works so well as hardly to admit of improvement.

ORGANIZATION OF THE DEPARTMENT.

This may be considered in reference to its internal and external arrangements.

The constitution and laws devolve the administrative management of all its affairs and workings upon the Postmaster General. His assistants and clerks share no part of his authority, but are merely ministerial agents to perform such services as he has not time to attend to in person. The preparation of the cases coming before him for decision, is entrusted to four bureaus, (or offices,) styled respectively Appointment, Contract, Finance, and Inspection Offices,*

The Inspection Office has since been merged in and made a division of the Contract Office.

the first three presided over by the Three Assistant Postmasters General, the Inspection Office being supervised by the Chief Clerk of the Department.

This will be a convenient place to give a list of the successive Postmasters General, with the dates of their appointment; also of the heads of the three principal bureaus of the Department. [These lists have been corrected from Mr. Leech's manuscript, and have been brought down to the present time, October 1, 1878.]—W. L. N.

LIST OF POSTMASTERS GENERAL,

Showing the State to which each was accredited, and the date of appointment:

Samuel Osgood	Massachusetts	Sept. 26,
Timothy Pickering	Pennsylvania	Aug. 12,
Joseph Habersham	Georgia	Feb. 25,
Gideon Granger	Connecticut	Nov. 28,
Return J. Meigs	Ohio	March 17,
John McLean	Ohio	June 26,
Wm. T. Barry	Kentucky	March 9,
Amos Kendall	Kentucky	May 1,
John M. Niles	Connecticut	May 19,
Francis Granger	New York	March 6,
Chas. A. Wickliffe	Kentucky	Sept. 13,
Cave Johnson	Tennessee	March 6,
Jacob Collamer	Vermont	March 8,
Nathan K. Hall	New York	July 23,
Samuel D. Hubbard	Connecticut	Aug. 31,
James Campbell	Pennsylvania	March 7,
Aaron V. Brown	Tennessee	March 6,
Joseph Holt	Kentucky	March 14,
Horatio King	Maine	Feb. 12,
Montgomery Blair	Maryland	March 5,
Wm. Dennison	Ohio	Sept. 24,
Alex. W. Randall	Wisconsin	July 25,
John A. J. Creswell	Maryland	March 5,
James W. Marshall	New Jersey	July 3,
Marshall Jewell	Connecticut	Sept. 1,
James N. Tyner	Indiana	July 12,
D. M. Key	Tennessee	March 7,

At the head of the three principal Bureaus.

<i>Appointment Office.</i>	<i>Appointed in—</i>	<i>Contract Office.</i>	<i>Appointed in—</i>	<i>Finance Office.</i>	<i>Appointed in—</i>
Jonathan Burrall.....	1789				
Chas. Burrall.....	1791				
Abraham Bradley, Jr.....	1800				
Seth Pease.....	1810				
Phineas Bradley.....	1818				
Chas. K. Gardner.....	1829	Selah R. Hobbie (N. Y.).....	1829		
Robert Johnson.....	1836			Daniel Coleman (N. C.).....	1836
Philo C. Fuller.....	1841			John S. Skinner (Md.).....	1843
John A. Bryan.....	1842			N. M. Miller (Ohio).....	1844
J. W. Tyson.....	1843				
Wm. Medill (Ohio).....	1845				
Wm. J. Brown (Ind.).....	1845			John Marron (Ga.).....	1846
Fitz Henry Warren (Iowa).....	1849				
S. D. Jacobs (Tenn.).....	1851	Fitz Henry Warren (Iowa).....	1851		
Selah R. Hobbie (N. Y.) reappointed.....	1853	Wm. H. Dundas (Va.).....	1852		
Horatio King (Me.).....	1854			A. N. Zevely (N. C.).....	1859
John A. Kasson (Iowa).....	1861	Geo. W. McLellan (Mass.).....	1861		
Alex. W. Randall (Wis.).....	1863				
St. John B. L. Skinner (N. Y.).....	1866				
George Earle (Md.).....	1869	Giles A. Smith (Ill.).....	1869	W. H. H. Terrell (Ind.).....	1869
James W. Marshall (N. J.).....	1869	John L. Routt (Ill.).....	1871	E. W. Barker (Mich.).....	1873
James H. Marr (Md.).....	1874				
James W. Marshall (N. J.).....	1874	James N. Tyner (Ind.).....	1875		
James N. Tyner (Ind.).....	1877	Thos. J. Brady (Ind.).....	1876	A. D. Hazen (Pa.).....	1877

[NOTE.—In some cases, in the early times of the Department, the First and Second Assistants exchanged places in the supervision of the Appointments and Contracts, so that there is some uncertainty in the designations of these in the above column.] W. L. N.

The Appointment Bureau is at present (1868) under the superintendence of General St. John B. L. Skinner, First Assistant Postmaster General, who is aided by 43 clerks and has the immediate charge of all matters connected with the establishment, discontinuance, or change of (name or) site of post offices; the appointment or removal of postmasters and clerks; the appointment and compensation of special, route, local, and other postal agents, and of post office and postal-railway clerks; and the distribution of blanks, &c., for the use of the post offices.

The Contract Bureau is in charge of George W. McLellan, Esq., Second Assistant Postmaster General, who with the assistance of 65 clerks, supervises all matters connected with the arranging, advertising, placing under contract, and altering, from time to time, the details of the inland post routes, including the mail-messenger arrangements, and the correspondence with mail contractors. Latterly, this bureau has, also, had supervision of the Inspection Office, whose business is to investigate the reports of postmasters touching the faithful performance, or deficiencies, as the case may be, of contractors; the imposition and remission of fines for delinquencies of this class; to investigate all reported depredations on the mails, or other violations of the postal laws; and to procure and distribute the mail bags, locks, and keys.

The Finance Bureau, employing 135 clerks, (including 65 females,) is supervised by Alexander N. Zevely, Esq., Third Assistant Postmaster General, whose duties extend over the payment of warrants and drafts in satisfaction of balances reported by the Auditor to be due to mail contractors and the creditors of the Department; the issue of postage stamps and envelopes, and instructions relative thereto; the receipts and return of dead letters; and the postal money-order division.

It is proper to add that the bureau of the Sixth Auditor, although strictly a branch of the Treasury Department, constitutes an important factor in the postal machinery, as it keeps the accounts of, and makes settlements with the great army of postmasters and contractors, route and other postal agents; also conducts the accounts and

agents growing out of the foreign mail service, the postal money-order system, and the issue of letter stamps and envelopes ; also reports to the Postmaster General quarterly and annual statements of the receipts and expenditures of the establishment.

In regard to the exterior organization a few words only will be needed, as the public come in contact with it, in its various phases, almost daily. Suffice it to say that there are in the service, in the year 1868, 26,481 postmasters, 1,891 mail contractors, 1,198 letter carriers, 232 postal-railway clerks, 49 special agents, and 490 route agents, in addition to the large number of post office clerks, and other minor agents.

The special agents are clothed with important powers of discretionary and general character in the States or districts to which they are respectively assigned. They are instructed to correct and report to the Department any regularities falling under or brought to their notice in the post offices or on the mail routes, as well as to arrest mail depredators. They for the most part travel *incog.*, and constitute a secret detective force of great value.

The route agents are virtually traveling postmasters. They receive letters at the railway cars up to the time of departure, which they mail and account for in due form. They also exchange pouches with postmasters at the intermediate offices, and accompany the mails on the cars between the terminal post offices, thus affording them protection.

The mail messengers perform a more humble duty, conveying the mail pouches and bags between the railroad stations and the post offices supplied by the cars, where situated more than a quarter of a mile from such stations. Within that distance the bags are delivered by employees of the railroad companies carrying the mail.

The local agents are usually employed at points where several railroads converge, to see that the bags going to reverse points of the compass are, on their arrival, properly received and transferred to the connecting trains.

LOCATION OF THE GENERAL POST OFFICE.

The United States Post Office Department, located at the seat of Government in the city of Washington, occupies an elegant structure of white marble, in greater part from Maryland quarries, quadrangular in shape, enclosing a court.

The two main fronts, on E and F streets, facing southwardly and northerly, are 204 feet in length; the other two, on 7th and 8th streets, are 300 feet in length.

The building, commenced in 1839, is in three stories, an adaptation of the Corinthian order of architecture, and was designed and built, in its southern portion, under the direction of Robert Mills, architect, and completed in its full extent, in 1855, by Captain (now General) M. C. Meigs, U. S. Engineers, from the designs of T. U. Walter, architect, costing about \$1,700,000.

With the exception of the north front, which faces the magnificent building of the Department of the Interior, generally known (from one of its bureaus) as the Patent Office building, it is so hemmed in by comparatively narrow streets and private houses as greatly to lessen the admirable effect its beautiful proportions are adapted to produce on beholders.

Within its walls (in 1868) are engaged about 360 clerks and other employees, including those of the Sixth Auditor's Office, (of the Treasury Department,) who are located here for the purpose of convenient reference to the Post Office records.

The Washington city post office occupies the central portion of the north front, the mails being received and despatched through a carriage way on the west front opening into the central court.

At the period of its creation, and for a year or two thereafter, the postal institution was located in the city of New York; subsequently, until November, 1800, in Philadelphia, whence it was moved, with the other executive offices, to Washington city, and was there located in a small edifice, at the northwest corner of E and 9th streets, thence it was taken to some rooms in the Navy Department.

nt Building (southwest of the Presidential Mansion.) Congress having, in 1810, authorized the purchase of a arate building for the joint use of the Post Office and Patent Office, the building then known as Blodgett's stel, on the southern front of the present site of the Post fice Department, was purchased for this use. On the rning of the Capitol by the British troops, on August , 1814, the Post Office was displaced for the temporary at of Congress, and was removed to the Gunton building, the northwest corner of 9th street and Pennsylvania venue, whence it was restored to the hotel site a couple of ars subsequently.

This building (of two stories of brick) was accidentally stroyed by fire through carelessness of an attendant, on e morning of December 15th, 1836, with the greater por- n of its contents, all the Patent Office models (in the per story) being consumed ; while but few of the Post fice books and papers were saved, and these only by the sonal exertions of Postmaster General Kendall, aided a few faithful clerks* and attendants.

The Department's seat of operation was thus again ved, and this time to the edifice on Pennsylvania nue, known during late years as Willard's Hotel, where remained until December, 1841, the date of its return to e place of its present commodious quarters.

GROWTH OF THE DEPARTMENT.

The great increase, from year to year, in the number of st offices and in the extent of the post routes, forcibly istrates the rapid advance of the nation.

The steady expansion of the Department during the 79 ars of its existence (up to 1868) is shown in the follow- g table :

Continued to 1878, and placed, for more convenient reference, at the close his history.—W. L. N.]

* Among whom was Mr. James Lawrenson, now the oldest rking member of the postal corps, he having entered the Balti- re Post Office in 1819, and the Department proper in 1834. om his lips have been derived much of these details, especially regard to the successive local habitations of the Department.— L. N.

Forty years ago the entire mail leaving the city of New York in any one direction, on a single day, could conveniently be carried in "the boot" of a coach. In 1869 the average daily weight carried between that city and Washington exceeded a ton. Through the aid of steam and the iron track, the mails are now transported with speed many times greater than in the early part of the present century, while the territory traversed, without taking into account the foreign service, instead of being confined to a narrow district along the Atlantic seaboard as in 1789, extends in one direction to the Mexican border and in another to the Pacific Ocean.

It is estimated that, at present, about 500,000,000 letters pass in one year through the post office of this country.

Here ends the compilation of the late Mr. D. T. T. Leech, who departed this life on November 5, 1869, after a useful and honorable career in the public service.

It remains to continue the exhibit of the principal features of the progress of the postal system of the United States, which shall be done with as much brevity as practicable, preserving the form adopted heretofore, of grouping the most noticeable facts under the heads of successive Presidential Administrations.

It may be proper to remark that the figures shown in the foregoing and subsequent tables of this brief history have been taken from the several published annual reports of the Postmaster General; as also here to supply an omission in the body of the history at page 37, where it should have been stated that Postmaster General Hall, having resigned, was succeeded (August 31, 1852) by Samuel D. Hubbard, of Connecticut, for the remainder of President Fillmore's term. See the list of Postmaster General.

W. L. NICHOLSON.

In continuation of notice of postal affairs during the latter part of the administration of President Johnson, (whole term 1865-1869,) under Postmaster General Alex.

dall, the chief features worthy of mention are these: at line of railroad from the Missouri River to the Ocean, formed by the two companies, the Union and the Central Pacific, was urged forward with ppled rapidity, opened for traffic in successive s at both ends, and completed in May, 1869, when l cumbrous mail stage-coach of "the overland was finally superseded. The mail service over arts of the Territories to the far northwest and st was pushed with great vigor; Mr. Randall g in the post office system being used as an agent unct in the opening out of new settlements, without re regard to the Department being made self-sus-

while the country was as yet sparsely filled up. rans-Atlantic mail steamship service was also in- and improved, new postal conventions with Great , North Germany, Belgium, and other countries into operation on January 1st, 1868, under which untry made its own arrangements for the mails it ed, and each remunerated the owners of the steam- employed for their conveyance. Under the same convention with Great Britain the single rate for :ional letters was reduced from twenty-four to twelve This rate was afterward still further reduced to s on January 1st, 1870. The single rate on letters i the United States and Canada had been reduced n cents to six cents on April 1st, 1868.

steamships from San Francisco to Japan and China iced to run at intervals in the early part of 1868, gular monthly service after the month of July of ar. Steamship service was also established with and the Hawaiian (Sandwich) Islands.

railway postal system introduced by Postmaster l Blair was greatly extended, while continuous vere made to harmonize the interests of the railroad ies and the Government in the adjustment of pay service.

oncentration and better supervision a Blank Agency ablished at Washington, and those at New York ffalo were discontinued.

Mr. Randall advocated a thorough re-organization of the Department, in the assignment of duties and better compensation of its officers and employees generally, but without want of harmony with the other governmental departments in arrangements for presentation of such and similar propositions before Congress, no comprehensive system was then adopted.

ADMINISTRATION OF ULYSSES S. GRANT—1869-71

President Johnson was succeeded by General Ulysses S. Grant, who appointed (March 5th, 1869) as his Postmaster General, John A. J. Creswell, of Maryland.

This gentleman brought to the discharge of his high and multifarious duties, an energy and quickness of apprehension and resource, admirably adapted to cope with the problems presented.

During the period of over five years while Mr. Creswell was at the head of the affairs of the Department, its various branches continued to develop, to be systematized, and to take on that smooth and easy, yet rapid mode of working, characteristic of the modern demands upon the public service. He placed before himself two aims—first, to promote the general efficiency of the Department—secondly, to relieve it, as far as possible, from the heavy excess of expenditure over revenue. The first aim was satisfactorily attained, the second only partially, owing to causes already seen to be inherent in all postal legislation for this progressive nation.

Particular attention was given to improve the mode of making the annual lettings, and to break up an abuse often attempted by fictitious bids from irresponsible parties, familiarly known as "straw bids."

Mr. Creswell was a strenuous advocate for the abolition of the "franking privilege," as entailing a burdensome cost upon the Department, and he finally succeeded in securing its total abolition, July 1st, 1873. He also strongly urged the feasibility of incorporating the electric telegraph as an arm of the Department's agency, by purchase of the lines from the private companies. Also the establishment

ernmental postal savings banks, (or "depositories,")
 to the benefit of the general public, drawing attention to
 great success as a part of the British post office.

He suggested liberal legislation for the revival and
 encouragement of American ship-building interests, and
 in the re-establishment of American lines of trans-
 oceanic steamers; urged the increase of the service, from
 once to semi-monthly upon the Japan, China, and
 India lines; and that communication by American steam-
 ships should be opened with the countries and islands of
 the Northwest Pacific Ocean. He called attention to the
 fact that heavy English mails were already being trans-
 mitted across our continent to and from New Zealand and
 Australian colonies, the time occupied being much
 less than by the Suez route.

Following upon the important reduction effected in post-
 rates between this country and the United Kingdom
 at Britain and Ireland, (January 1, 1870,) the post-
 rates were reduced, towards the close of that fiscal
 year from 15 to 10 cents per single rate on the letters ex-
 cepted by closed mails, *via* England, with Germany, Bel-
 gium, Italy, The Netherlands, and Switzerland, including
 countries and places to which they respectively serve as
 intermediaries. Reduced rates were also established, at the
 same time, to countries on the west coast of South America,
 Colombia, Sandwich Islands, New Zealand, Australia
 and the East Indies.

His continued efforts, for several years, on the part of
 the United States Post Office Department to induce that of
 France to enter upon more liberal and mutually equitable
 arrangements in their intercourse, the last convention (of
 1852, 1857,) being very unequal in its details, these
 were finally successful in the carrying out the terms
 of a more satisfactory convention between the two coun-
 tries which went into operation August 1, 1874, and by
 which the single rate of letter postage was reduced to 9
 cents per half ounce for the United States, and 50 cen-
 ts per 10 grams for France.

In April, 1870, a new series of adhesive postage-stamps
 was substituted for those hitherto in use; each denomina-

tion of the new set bearing the head, in profile, of a distinguished deceased American, taken from busts of acknowledged artistic excellence.

A bill "to revise, consolidate, and amend the statute relating to the Post Office Department," afterward known as the Postal Code, was passed by Congress, June 8, 1872, which introduced several important improvements in the service, and likewise partially made a re-organization of the Department—an object which Mr. Creswell had much at heart.

A great increase in the money-order system, both domestic and international, may be noted. Exchange of postal money-orders went into operation with Switzerland, September 1, 1869; with Great Britain, October 2, 1871, and with the German Empire, October 1, 1872.

At the close, in 1873, of the first decade of the free delivery (letter-carrier) service in this country, the results were found to be very satisfactory, the general average of population to each carrier being then estimated at 3,690. The expense of the system at each office is paid out of the revenue of that office. Though the benefits are most apparent in the larger cities, they are still felt and appreciated in smaller places.

The ratio of the number of "dead" letters to the whole continued to be largely decreased by the use of stamped envelopes bearing "return requests."

In accordance with the act of March 3, 1873, supplementing the abolition of the franking privilege, a series of official stamps and stamped envelopes was prepared for the several Executive Departments, going into use on July 1st of that year.

Following the lead of Great Britain, whose action in the matter, in her domestic service, dates from October 1, 1870, the Postmaster General was authorized by Congress, June 8, 1872, to furnish and issue to the public, "postal cards," with postage stamps impressed, at a postage charge of one cent each. These were issued May 1st, 1873, and immediately came into great favor with the public.

The first foreign country with which an exchange of postal cards was effected, was that of Switzerland, May 1st, 1874.

n act had been in existence from July 24, 1866, providing that in consideration of the grant of certain valua-franchises, a reduction in charges for the transmission of governmental dispatches would be made by such of telegraph companies as chose to come under such an arrangement. By a subsequent act, March 3, 1871, the Postmaster General was required to fix the rate to be paid for telegraphic dispatches by the several Departments. The first order was dated June 29, 1871, declaring—1st. That the rates for all telegraphic communications known as the signal-service messages and reports, should be two cents for each word for each circuit over which it may pass in accordance with the schedule of circuits and plans of the Chief Signal Officer of the Army, and that no additional or extra allowance should be made under any pretext whatever. 2d. That for all communications on behalf of the Government, the rate should be one cent per word for each distance of two hundred and fifty miles or fraction of such distance.

At the expiry of the contracts with the various transatlantic Companies, for the conveyance of the United States mails, from and to New York, a new arrangement went into operation January 1, 1874, whereby the companies were required to furnish beforehand a schedule of the sailings of their steamships for the ensuing month, thus enabling the Department to select and designate the vessels which should carry the mails on four days of each week.

Mr. Creswell advocated a change in the mode of the adjustment of the salaries of postmasters; recommended the prepayment of postage on newspapers and other matter of the second class, by weight of packages, and that a uniform rate and limit of weight be established for miscellaneous printed matter; and also gave considerable attention to the difficult question of equitable pay for railroad companies carrying the mails.

With the wide spread operations of the Department, numerous delicate and important legal questions were continually arising, requiring the close attention and discrimination of the Postmaster General, to an extent seriously

interfering with other duties. To furnish adequate help in the presentation and adjudication of these matters, the office of the Assistant Attorney General for the Post Department was created by law in the year 1873.

Towards the close of Mr. Creswell's term, the number of post offices in the United States being so largely increased, and great need being felt for a list thereof at intervals, arrangements were made for the publication of an official "Postal Guide," to be issued quarterly, the number of which appeared on October 1, 1874, under contract with Messrs. Hurd & Houghton, of Cambridge, Massachusetts.

Mr. Creswell having resigned, July 3, 1874, to continue his private legal practice, was succeeded, temporarily, by James W. Marshall, of New Jersey, then First Assistant, who filled the office of Postmaster General, with his tried urbanity and painstaking care, for about two months until the advent of ex-Governor Marshall Jewell, of Connecticut, who had been called from the mission to the court of St. Petersburg, and entered upon the postal career on September 1st, 1874.

This administrator made it his effort to carry out the discharge of his functions, the methods of a long and successful experience of business life, and at the same time to apply these as far as might be practicable, in the line of economizing and systematizing the service.

One of the first measures of Mr. Jewell, was to prepare for a representative of the United States at the national Postal Congress meeting at Berne, Switzerland, during the months of September and October, 1874.

Jos. H. Blackfan, Esq., Superintendent of Foreign Affairs, was commissioned in that capacity, and succeeded in securing the interests of the United States Post Office government in the final treaty, which entered into effect on January 1st, 1875.

The provisions of this treaty, world-wide in its scope, are too numerous to be mentioned here—the main feature being that the countries forming the Union, twenty in number at its inception, were to constitute a

l territory for the exchange of correspondence, and at uniform rates; each country retaining all the postage; collects, thus dispensing with the former system of separate accounts.

A new postal arrangement was, about the same time, entered into with the Dominion of Canada, for the unification of the postal systems of the two countries; under its provisions, going into operation on February 1st, 1875, foreign lines are disregarded so far as the postal service is concerned, the postage charges reduced to the domestic rate of the country of origin; thus bringing the two countries into closer social and business relations.

Reductions were also effected in the postage rates with countries not included in the General Postal Union; reduction applying chiefly to correspondence with the West Indies, Central America, and countries of the west of South America.

Under the mail-subsidy contract with the United States and the mail-steamship company, for ten years, for a monthly subsidy having expired on September 30th, 1875, Mr. Jewell pressed himself as in favor of the general principle that rate subsidies, in excess of the postage allowed, be granted by Congress to establish, and maintain steamship lines by American citizens across the Atlantic, and to connect American ports. Pending other arrangements, the course for the United States mails to and from Brazil, and the adjacent South American States, must be the circuitous route, via England, and thence by British mail-ships to Rio de Janeiro, thus involving very serious expenses. Other European countries also enjoyed direct communication with Brazil by as many as ten lines of steamers. Mr. Jewell took great interest in the introduction in Brazil of "fast-mail" service, that is, exclusive and limited trains, composed of fully-equipped postal cars, on a few of the principal railroads, a service which under the intelligent care and energy of the late George S. Bangs, General Superintendent of Railway Mail Service, attained its most satisfactory development. The fast-mail trains were, however, withdrawn in consequence of inadequate appropriations for their continuance, and for the re-adjust-

ment and increase of allowance to the railway companies for the performance of this, and the usual service, as estimated by weights carried; the weights of the mails (the first ordered weighing took place in 1867) being found to be much larger than those previously taken, on which appropriations, therefor, per act of March 3d, 1873, had been based.

It having been found that the proceeds of the domestic money-order service did not meet the expenses, the schedule of fees for orders not exceeding \$30 was increased, the fees for orders of larger amounts remaining unchanged. This change took effect July 1, 1875.

Under a convention between the United States and the Dominion of Canada, the exchange of postal money orders between the two countries was put in operation August 2d, 1875.

An exchange of "postal cards" with Switzerland, on the basis of a prepaid postage of two cents in full to destination in either country, was established May 1st, 1874.

The free delivery system continued to be extended, as also the use of "registered letters," the fee for their prepayment being reduced on January 1, 1874, from 15 cents to 8 cents, but this was afterwards modified so as to make it 10 cents on each letter or package for all parts of the world.

A modification was made in the salaries of those useful and hard-working men, the letter carriers, and an effort made towards classifying and grading according to length of service and efficiency.

Mr. Jewell introduced a re-organization of the system of repairing mail bags, which was ably carried out by his Assistant, (and afterwards successor) Mr. Tyner, resulting in a great reduction of that item of expense.

Finally, after this exhibit of the labors of Postmaster General Jewell, directed towards improving and economizing the service in all its details, it is with a feeling of regret that we have to add that his hopes of a considerable reduction in the annual deficiency of the Post Office Department were not realized to the extent he desired—the ever-present cause of the excess of expenditures over reve-

ness being the calls—not to be resisted—for providing postal facilities to the most sparsely settled as well as to the older and denser populated parts of what Mr. Jewell well characterized as our nation's "magnificent domain."

Mr. Jewell resigned on July 12th, 1876, and President Grant embraced the opportunity in the assignment of his successor, to avail himself of the long experience, in postal as well as in legislative affairs, of James N. Tyner, of Indiana, who had been for some time past the Second Assistant.

At the Centennial Exposition in Philadelphia, during the latter part of the year 1876, the Post Office Department was duly represented. A branch of the Philadelphia post office, fitted up with the requisites of a first-class post office, was located in the Government building in the grounds, for the accommodation of the foreign and domestic officials and exhibitors, and the large number of persons in daily attendance on the exhibition.

Letter boxes were located throughout the grounds, and a corps of letter carriers supplied every practicable facility for the prompt transaction of this business.

An exhibit was also made of a railway postal car with its catching and delivering apparatus, and specimens of the mail bags and locks, post-route maps, and an envelope putting and stamping machine, attracted the curiosity and interest of visitors.

On December 31, 1876, the contract existing for the previous ten years, with the Pacific Mail Steamship Company for the conveyance of a monthly mail from San Francisco to Japan and China expired, and thereafter the provisions of the general law limiting the compensation for the transportation of the mails by sea to the amount of postages on the mails conveyed became applicable to this route. This was the only American ocean steamship line, except that performing weekly trips between Philadelphia and Liverpool; all other trans-Atlantic and Pacific mail service being performed by steamships sailing under the flags of other nations.

The General Postal Union continued to be enlarged by the admission of other countries, notably by those of British India and the French colonies.

A special arrangement, taking effect from August 24th 1876, was concluded with the General Post Office of the United Kingdom of Great Britain and Ireland, increasing the transit charges on the British and Australian close mails, now of such great bulk and weight, conveyed across the American Continent, between Boston or New York and San Francisco.

Mr. Tyner was able to report that during the past year the loss and annoyance to the Department, occasioned by the vicious system of "straw bids" had almost wholly disappeared; the prompt measures taken in case of failure of bidders and contractors tending to this result. The requirements of the law of 1874 requiring the deposit by all bidders upon every mail route, where annual compensation for the service exceeded 5,000 dollars, of a check or draft upon a national bank of value not less than 5 per cent. of the annual pay of such route, the deposit to be forfeited to the United States in case of failure on the part of the bidder, doubtless added to the stringency of these arrangements for the mail lettings.

In compliance with the law of July 12th, 1876, requiring a reduction of 10 per cent. in the pay of railroad companies for carrying the mails, a commission of three skilled and competent persons was appointed by the President to investigate the whole subject of mail transportation by railroad, with a view to making their report the basis of future legislation. These gentlemen entered on their work about the first of August, 1876.

ADMINISTRATION OF RUTHERFORD B. HAYES— 1877.

On the accession of President Hayes, the customary accompaniment of politico-administrative changes transferring, in this case, Mr. Tyner from the chief position, to that of First Assistant, he was succeeded as Postmaster General, on March 7th, 1877, by David M. Key, of Tennessee, recently United States Senator from that State; whose appointment the general opinion is that no more genial, dignified, and calmly judicial-minded occupant of the postal chair could have been designated.

Mr. Key, in his first annual report, stated his satisfaction in finding the several bureaus of the Department to be in excellent working order; and that everything connected with the postal service testified to the ability and fidelity of his predecessor and those associated with him.

In the same report, at the close of the year 1877, he called attention to the depressed financial and commercial condition of the country generally, as evidenced by the falling-off in the money-order business, and in the issues of postage stamps and stamped envelopes, as also denoted by a decrease of about 8 per cent. in the number of dead letters. This latter fact, however, might be explained by the increase in the efficiency of the free delivery (carrier) system. This free-delivery, he regretted, could not be extended to additional cities, (excepting Georgetown, D. C., from January 1st, 1878,) for want of sufficient appropriation by Congress, which also necessitated a still further reduction in the pay of the letter carriers.

Mr. Key had also to call attention to the unsatisfactory mail arrangements with the countries of South America afterwards partially improved by the terms of the Universal Postal Union going into effect April 1st, 1879,)—to the desirability of foreign book-packets by mail entering free of duty—to the adjustment of some *ante-bellum* mail contracts being still unsettled—to the vexed question of equitable arrangements for pay to railroad companies carrying the mails—to the requirements for increased appropriations for the railway mail service—to the advisability of a change in the mode of paying postmasters of fourth class—and he suggested the detail of three experienced officers of the Department to go to Europe, and examine and report on the operation and details of the postal service of those Governments which have the most complete and efficient postal systems.

During the years 1877 and 1878, the territory of the General Postal Union was enlarged by further accessions, including certain colonies of Great Britain, of Spain, of the Netherlands, of Portugal, and of Denmark, Japan, Brazil, Persia, the Argentine Republic, the Dominion of Canada, and Peru.

At an International Postal Congress, convened at Paris on the 1st of May, 1878, the United States was represented by Messrs. James N. Tyner, First Assistant Postmaster General, and Joseph H. Blackfan, Superintendent of Foreign Mails, who were successful in securing in the revised convention every important interest desired by their Government. The Universal Postal Convention was duly ratified and approved on August 13th, 1878, and went into operation on April 1st, 1879, replacing, from that date, the Postal Union Treaty concluded at Berne on October 9th, 1874. The specific title of the previous existing International Union was changed to that of "Universal Postal Union," but the modifications adopted are too numerous for mention here.

The exchange of money-orders with the Kingdom of Italy was effected by a convention going into operation July 2d, 1877.

The registry system was extended on October 1st, 1878, to mail matter of the third class—a measure which supplied a great popular want, with good hopes of a beneficial result to the postal revenues.

At the recommendation of the Postmaster General, law was enacted May 17th, 1878, affording protection to sub-contractors on mail routes, by giving them a lien for their pay on the compensation due the contractor.

Among the important recommendations made by the Postmaster General, in his first annual report, (1877,) was one providing for the registration of newspapers and periodical publications entitled under the act of June 23, 1874, to be transmitted through the mails at the rate of two and three cents per pound. In preparing a bill embodying these views and covering the whole subject of classification of mail matter, a new departure was made by consulting in conference, the leading publishers and business men to obtain their views upon the subject. The proposed action was highly commended at a postal conference held in the city of New York, October 9 and 10, 1878, at which were present representatives of the various interests, the Department being represented by Mr. A. H. Bissell, Law Clerk of the Department, in whose hands this matter had been

by the Postmaster General, and who had previously made an able report on the subject. These views were substantially embodied in an act, March 3, 1879, which repealed all former laws relating to classification of mail and rates of postage, made four classes of mail; liberalized the provisions of former laws respecting inscriptions on printed matter, and defined printed matter generally.

A report of the commission of three, on the general subject of transportation of the mails by railroad commissions was made to the Forty-fifth Congress, with divergent views on the part of its members.

Contrasting with the statement in his report of 1877, Key found grounds to remark, in his report of the following year, that there were visible signs of reviving commerce throughout the country—the money-order business showing a satisfactory increase, which was also the case in the issues of ordinary postage stamps, stamped envelopes and postal cards.

The annual statistical statement of the Department issued for June 30th, 1878, the number of post offices to 15,258; the number of mail contractors 5,996; and the total length of all post routes 301,966 miles.

Mr. Key, like most of his predecessors, in commenting on the usual annual deficit of the revenues below the expenditures, has remarked that the tendency of legislation in the Post Office Department has been to cheapen rates of postage to a point below the cost of transportation. This, with the large amount of mail matter, (postal and Congressional) allowed, under the recent acts of March 3d, 1875, and March 3d, 1879, to go free through the mails, must cause deficiencies to increase as the business increases, so that, as long as this continues, but little can be entertained of the Department becoming self-sustaining.

Here we stop with this history of the Post Office Department—respectfully requesting indulgence for imperfections or omissions, unavoidable, in a measure, with the

limited space here disposable for the notice of details so wide-spreading an institution.

A few lines may be added as to desiderata required for the improvement of the service in the immediate future at least as gathered, more or less, from published intimations of the Postmaster General and from his Assistants and other officers of the Department.

To limit as much as possible the amount of free mail (franking privilege) and thus to decrease the bulk of the mails, and the cost of their transport.

To make equitable arrangements with railroad companies for the conveyance of the mails—adjustment of rates for this service—and resort to arbitration where parties cannot agree.

To encourage "fast mail" on service by limited trains, to allow of the Department's selection, where practicable, of the hours of dispatch and schedule of mail trains, and to induce sufficient appropriations for this and other ordinary service.

Facilitating the free delivery (letter carrier) service, and extension of it gradually to other cities; combined with adequate pay to the letter carriers.

Temporary contracts by the Postmaster General for mail transportation to be allowable without advertisement for one year instead of six months.

Book-packets by mail from foreign countries to be allowed duty free.

To recommend to railroad managers, that in the naming of their stations, they should conform to the post office name, and that applicants for the establishment of new post offices should suggest the already known local name, and avoid the adoption of a fanciful or merely personal name, (such as Jeemes' Store, &c.)

To bring up, at the proper time, the consideration of the question of the incorporation of the Electric Telegraph as an instrument of the Department's working for the people.

To utilize the Telephone, and other means of rapid speaking and writing.

To test the applicability of the Pneumatic Tube Dispat

parcels and letters in the larger cities, from the main post office to sub-offices, as used in London, Paris, and Berlin.

To establish Postal Savings Depositories, for the benefit of the public—so successful in Great Britain, and in Canada.

Enlargement or new construction of post office buildings in some of the larger cities.

Extension of the Post Office Department building in Washington.

Re-organization of the Department, where advisable and practicable, in its personnel, grading of their salaries, and distribution of their duties, combined with an attempt, in co-operation with the other Departments, to have the surest of office of well-trying and faithful officials placed on a permanent basis; raising the question of gradual improvement of salaries (to a fixed limit) according to length of service, and the privilege of retiring pensions of departmental employees, as an act of simple justice, after their service to their country.

Last, and all the time, to pray Congress to grant full and liberal appropriations for the support of this—emphatically the people's Department—the Post Office Department of the United States.

GROWTH OF THE POST OFFICE DEPARTMENT.

Year.	No. of post offices.	Length of all post routes.	Cost of transportation.	RAILROADS USED.			Revenue of the Department.	Expenditure of the Department.	Surplus.	Deficit.	Population of the U. S. at decennial censuses.
				Total.		Carrying postal cars.					
				Miles.	Dollars.						
1790	75	1,875	22,081	---	---	37,935	32,140	5,795	---	---	3,929,214
1795	453	13,207	75,359	---	---	160,020	117,893	42,727	---	---	---
1800	903	20,817	128,644	---	---	280,804	218,904	66,900	---	---	5,308,483
1805	1,558	31,070	239,635	---	---	421,373	377,367	44,006	---	---	---
1810	2,300	36,406	327,966	---	---	551,684	495,969	55,715	---	---	7,239,881
1815	3,000	43,748	487,779	---	---	1,043,065	748,121	294,944	---	---	---
1820	4,500	72,492	782,425	---	---	1,111,927	1,160,926	---	48,999	---	9,633,822
1825	5,677	94,052	785,646	---	---	1,306,525	1,229,043	77,482	---	---	---
1830	8,450	115,176	1,272,156	---	---	1,919,300	1,959,109	---	39,809	---	12,866,020
1835	10,770	112,774	1,553,222	1,098	---	3,152,376	2,583,108	567,268	---	---	---
1840	13,468	155,739	3,213,043	2,818	---	4,543,522	4,718,236	---	174,714	---	17,069,453
1845	14,183	143,940	2,898,630	4,633	---	4,289,842	4,320,782	---	30,890	---	---
1850	18,417	178,672	2,965,786	9,021	---	5,499,985	5,212,953	287,032	---	---	23,191,876
1855	24,410	227,908	5,345,238	18,333	---	6,642,136	9,968,342	---	3,326,206	---	---
1860	28,498	240,594	8,808,710	27,129	---	8,518,067	19,170,610	---	10,652,543	---	31,443,321
1865	20,550	142,340	6,803,487	23,401	---	14,556,159	13,694,728	861,420	---	---	---
1870	28,492	231,232	12,355,543	43,727	8,232	19,772,221	23,998,838	---	4,226,617	---	38,558,371
1875	35,547	277,873	18,285,170	70,083	16,932	26,791,360	33,611,309	---	6,819,949	---	---

Contract Sections and Terms.

The area of the United States and Territories is, for the purpose of the postal lettings and contract terms, divided into four contract sections, and a general letting for one of these sections occurs every year. The existing and proximate lettings for the several terms are as follows :

First Section.—July 1, 1877, to June 30, 1881 ;

—Me., N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Md., Dist. of Col., Va., and W. Va.

Second Section.—July 1, 1876, to June 30, 1880 ;

—Ohio, Ind., Ky., Tenn., N. C., S. C., Ga., Fla., Ala., and Miss.

Third Section.—July 1, 1879, to June 30, 1883 ;

—Ill., Iowa, Mo., Mich., Wis., and Minn.

Fourth Section.—July 1, 1878, to June 30, 1882 ;

—La., Tex., Ark., Kans., Neb., Colo., Nev., Cal., Oreg., the Indian Territory, and the Territories of Dak., Mont., Wyo., Idaho, Wash., New Mex., and Arizona.

**Number of Departmental Officers and Employees, June 3
1878.**

Postmaster General	
Assistant Postmasters General	
Superintendent of Money-Order System	
Superintendent of Foreign Mails	
Topographer for Department	
Chief Clerk to the Postmaster General	
Chief Clerks of Bureaus	
Chief of Division of Dead Letters	
" " " Depredations	
" " " Postage Stamps, Stamped Envelopes, &c., &c.	
" " " Free-Delivery Service	
Chief Special Agent	
General Superintendent Railway Mail Service	
Disbursing Officer and Superintendent of Building	
Stenographer	
Clerks, messengers, watchmen, &c.	36
Total	38

Postmasters and other Postal Agents.

Postmasters	39,258
Contractors	5,996
Clerks in post offices	4,651
Letter Carriers	2,275
Route Agents	1,148
Railway Post Office Clerks	1,081
Mail Route Messengers	241
Local Agents	148
Special Agents, (including 11 Superintendents of Railway Mail Service)	57
Total	54,846

USEFUL TABLES.

The following selection of tables, on subjects cognate to that of the communications of mankind, drawn up from original sources and put together in compact form, will, it is hoped, be found useful to all postal men, to men of business, and to all interested in the progress of this country in its mission among the nations.

These tables are :

1. Continental and Oceanic discoveries and explorations connected with the Western Continent.
2. Internal improvements of the United States, &c., (roads, railroads, canals, steam navigation, telegraph lines.)
3. General statistics of the United States and Territories, (Census of 1870.)
4. Population of the larger cities of the United States.
5. Some statistics of other countries having most postal business with the United States.
6. Population of principal cities (chiefly sea-ports) of the world.
7. Postal statistics of Great Britain.
8. Difference of Longitude, (clock time,) between principal cities of the United States.
9. Metric and cental systems.
10. Weights and measures of foreign nations, (selected list.)
1. Table of distances, by shortest post-routes, in the United States.
2. Table of sea distances between principal sea-ports of the world.
3. Table for conversion of Statute (land) miles into Nautical (sea) miles, and *vice versa*; and table for conversion of Statute miles into kilometers, and *vice versa*.

No. 1.

**Continental and Oceanic Discoveries and Explorations
Connected with the Western Continent, (North and
South America.)**

A. D.

- 1000. Discovery of the American Continent, by the Northman Leif (the Lucky,) son of Eric the Red, (from Greenland)
- 1492. Discovery of the Bahamas and other West India Islands by Christopher Columbus, (on October 12th, he first saw Guanahani, called by him San Salvador, now known as Watling's Island.)
- 1497. Discovery of the coast of Labrador, North America, by John and Sebastian Cabot.
- 1497. Cape of Good Hope doubled by Vasco da Gama, on his way to the East Indies.
- 1498. Discovery of the mainland of South America, near mouth of the Orinoco, by Columbus.
- 1498. Newfoundland visited and named by Sebastian Cabot.
- 1507. The name AMERICA first applied, (called after Amerigo Vespucci, one of the followers of Columbus, who published in 1504, an account of his voyage under the command of Ojeda to the coast of South America in 1499, and of his own voyages in succeeding years.)
- 1513. Pacific Ocean, (the "South Sea,") first seen by white men, from the Isthmus of Darien, and claimed for Castille, by Vasco Nunez de Balboa, sword in hand, standing in its waters.
- 1521. Conquest of Mexico, by Hernando Cortez.
- 1522. One of Magellan's ships, (the "Victoria,") completed its circumnavigation of the globe, for which its commander, Sebastian de Elcano, received from his Emperor, (Charles V.) the glorious armorial bearing, a globe with the motto, "*Primus circumdedisti me.*"
- 1532. Conquest of Peru by Francisco Pizarro.
- 1534. Lower California discovered, (Upper California in 1541.)
- 1535. Jacques Cartier enters and sails up the St. Lawrence river.
- 1541. The Mississippi river reached by Hernando de Soto. (La Salle descended it to its mouth in 1682.)
- 1542. The Sandwich Islands discovered by Gaetano.
- 1565. Founding of St. Augustine, (Florida,) by the Spaniards, August 28th.
- 1607. First permanent settlement of Virginia, at Jamestown.
- 1608. Founding of Quebec, by the French under Samuel de Champlain.
- 1609. The Hudson river entered and ascended, (above the present city of Albany,) by Henry Hudson in the "Half Moon."

20. Landing of the Pilgrim Fathers, at Plymouth, Mass. (Forefathers' Day is now celebrated December 22d.)
22. Dutch West India Company settled New Netherland, (at the present site of New York.)
30. Settlement of Boston, Mass.
34. " Maryland, under Lord Baltimore.
38. " Delaware, by the Swedes.
32. " Pennsylvania, (Philadelphia,) by William Penn.
40. Conquest of Canada, and other French settlements, by the British, (Quebec captured September 17th, 1759; Montreal surrendered September 8th, 1760.
75. Discovery of coast of Oregon.
76. Declaration of Independence of the Thirteen States, (proclaimed July 4th.)
38. Close of war with Great Britain, and acknowledgment of the Independence of the United States.
13. Acquisition of Louisiana, by purchase from France.
40. Acquisition of Florida, by purchase from Spain.
2. Independence achieved, and formation of the Republic of Mexico.
2. Empire of Brazil established, (first Emperor, Dom Pedro I.)
8. Acquisition of California and surrounding regions, by treaty with Mexico.
15. Close of the war of the Rebellion, (1860-1865.)
15. Slavery in the United States abolished, (amendment to the Constitution declared adopted December 18th.)
17. Acquisition of Alaska, by purchase from Russia.
17. All the British Possessions in North America, (excepting Newfoundland and Prince Edward Island,) incorporated as "The Dominion of Canada."

No. 2.

Early Internal Improvements, Discoveries, &c.,

incipally of those which have facilitated the intercommunication of mankind on the American continent; roads, railroads, canals, steam navigation, telegraph lines.

ROADS.

In England: Mail coaches on the principal roads were introduced by Palmer in 1784, (maximum speed ten miles per hour.)

In the United States: The Philadelphia and Lancaster Turnpike Company, incorporated April 10th, 1791, was

the first in the United States; the road was opened 1795. The Cumberland (or National) road—summit 2,800 feet above the sea—was completed from Cumberland Wheeling in 1821, and afterwards extended through Ohio and Indiana.

RAILROADS.

In England: The Stockton and Darlington was the first passenger railroad (employing horse-power,) opened in 1825. The Liverpool and Manchester (with Robert Stephenson's locomotive "Rocket") was opened in 1830.

In the United States: The South Carolina (Charleston to Hamburg, opposite Augusta, Ga.,) in 1830, using locomotive power; the Baltimore and Ohio was opened for 11 miles to Ellicott's Mills, in 1830, with the first locomotive built in America (by Peter Cooper, of New York;) the road was completed to Wheeling, 380 miles in 1853—the Washington branch was opened in 1835; the Mohawk and Hudson, (afterwards called the Albany and Schenectady) a locomotive road, in 1831.

The Pacific Railroad, (from the Missouri river to Sacramento, Cal.,) 1,776 miles, was completed in May, 1869.

The Panama Railroad, (48 miles long, summit 286 feet above sea-level,) was finished in 1855.

CANALS.

The principal ship-canals of the world are the following:
Year of completion.

- 1681. The Languedoc, or Canal du Midi, (in France, connecting the Atlantic with the Mediterranean,) 149 miles, 99 locks.
- 1790. Forth and Clyde, (in Scotland,) 38 miles, 39 locks.
- 1823. The Caledonian, (in Scotland,) 60½ miles, 28 locks.
- 1825. The Erie, (Albany to Buffalo,) 363 miles, 83 locks—(enlargement, 352 miles in length, in 1862.)
- 1825. The North Holland, (or Helder Canal,) in the Netherlands 50 miles, 2 locks.
- 1826. The Göta, (Sweden,) connecting the Baltic with the North Sea—232 miles, 65 locks.
- 1848. The Illinois and Michigan, connecting Lake Michigan with the Mississippi river, 96 miles, 17 locks.
- 1850. The Chesapeake and Ohio, (Washington and Georgetown to Cumberland, Md.,) 186 miles, 75 locks, begun in 1828, completed in 1850. (Extension and enlargement proposed to the Ohio River.)

51. The James River and Kanawha Canal, (Richmond to Buchanan, Va.,) 196 miles, 90 locks. Extension and enlargement proposed to the Kanawha river.
56. The canals of Canada were chiefly constructed during the years from 1825 to 1856.
69. The Isthmus of Suez, 100 miles, no locks, opened throughout November 17 to 20, 1869.
76. The Amsterdam, (or North Sea Canal,) $16\frac{1}{2}$ miles, one great sea lock.
- Proposed. The American Isthmus Canal, Nicaragua (?) Panama (?) or Darien (?) to connect the Atlantic and Pacific oceans; one of the greatest projects of the present day.

The different routes examined for this, in order of location from north-west to south-east, may be classed as those of Tehuantepec, Nicaragua, Panama, and Darien, all of which have been surveyed by naval commanders and engineers under orders of the United States Government.

The first of these (Tehuantepec,) would require a canal 4 miles long, with 4 tunnels, and 140 locks, to overcome a summit of 754 feet above the oceans, and, with these features, has been considered impracticable.

The second, (Nicaragua,) $181\frac{1}{2}$ miles in total length, of which $56\frac{1}{2}$ miles are through Lake Nicaragua, whose waters would be the summit plane, 107 feet above the oceans; the canal proper and slackwater $124\frac{1}{2}$ miles long, with 21 locks, and no tunnel.

The third, (Panama,) as surveyed by United States officers in 1875, $41\frac{1}{2}$ miles in length, the summit 124 feet above the oceans, 25 locks, and no tunnel.

A rival project, presented at the Canal Congress in Paris, in 1879, is 46.6 miles in length, (75 kilometers,) summit 262 feet above the oceans, no locks, but a tunnel proposed on sea-level, $3\frac{1}{2}$ miles in length, (6 kilometers.)

Another route east of the preceding, extending southward from the Gulf of San Blas to the mouth of the Chiriquí or Chepo river, about 37 miles across from ocean to ocean; though requiring only about 27 miles of canal, and having good harbors at its extremities, would seem to require further examination before being pronounced advisable, owing to the height of the intermediate ridges.

The so-called Darien projects may be named as that of Ledonia Bay (site of the unfortunate Scottish colony of

1698,) to the Gulf of San Miguel, and those con- with the Atrato river, severally known as the rou the Atrato-Tuyra, Atrato-Cacarica-Tuyra, Atrato-Tr Atrato-Napipi and Cupica, Atrato and Chiri-Chiri I

All of these latter, so far as yet examined, prese midable engineering difficulties, heavy summits pierced by tunnelling or deep cuts, and with, possibl certain supplies of water if locks are resorted to. seem to have been set aside by the late Canal Cong impracticable; though imagination delights to ling the tracks of the early path-seekers in that region, B "staring with eagle eyes" from "a peak in Darien, the long-headed Scot, Paterson, musing at his sea settlement on visions of commerce with the Indie we would fondly hope that Nature does not deny th splendid harbors in Caledonia Bay and the Gulf o Miguel, or the magnificent river Atrato, (with 28 feet of water for 150 miles up from its mouth,) may, found, one or other of them, to be the veritable "d the seas."

NOTE ADDED IN 1879.—May we not hope that th ject of the American Isthmus Canal will soon be act under an American leader equal in executive abil M. de Lesseps, who so successfully carried out that Suez Canal, and that the coming man may have the gratification, Doge-like, of casting into the water ring, signet of the marriage of the Atlantic and the E Oceans.

If the writer were to venture an opinion, based c amination of the evidence so far, though his engin studies and practice not having lain in that special tion, modesty counsels extreme diffidence, the Nica is *the* route, if adequate provisions can be made fo holding its terminal harbors, a *sine qua non* of all canals. This route is an open-cut, (without tunnels easily practicable by the use of locks, well watered ennially from Lake Nicaragua, around whose shore fertile climate, may arise in the future a great po interoceanic State.

The next in feasibility seems to be the Panama r

likewise an open-cut canal with locks, as reported favorably on, from surveys of the United States engineers, excluding the idea of a long tunnel with great and uncertain delivery through it of the floods from the adjacent water-sheds;) but this route, though shorter than the Nicaragua, lies in a more southern latitude, and presents great engineering difficulties.

It may be interesting to remark, that the *saving* of distance from the port of New York to San Francisco, *via* Lake Nicaragua, over the present round-about track through the Straits of Magellan, would be 8,600 miles, the respective distances being 13,610, and 5,010 miles,) and proportionate immense saving between the Atlantic ports, and those of Asia, Australia, and New Zealand.

STEAM NAVIGATION.

The improvements (the almost creation) of the steam-engine, by James Watt, (patented in 1769,) and the experiments and trials of succeeding laborers in that field, paved the way for the first successful introduction of the steamboat.

Robert Fulton ran the "Clermont" on the Hudson in 1807; the "Accommodation" was run on the St. Lawrence in 1809; Captain Roosevelt was the first to descend the Ohio and Mississippi rivers in a steamboat, the "New Orleans," built under his care for Fulton and Livingston,) from Pittsburgh, Pa., to Natchez, Mississippi, October, 1811, to January, 1812; Henry Bell ran the "Comet," (built in 1811,) on the Clyde in 1812; James Watt, Jr., the "Caledonia" on the Rhine in 1817.

In 1815, two steamboats left the Clyde for the Thames, one by the Forth and Clyde Canal and the east coast, the other by the west coast, and round the Land's End.

The first steamboat which crossed the Atlantic was the "Savannah," from Savannah, Ga., to Liverpool, in 1819.

The "Curagoa" sailed from Holland to the Dutch West Indies in 1829.

In 1833, the "Royal William" sailed from Quebec to London.

In 1838, the "Sirius" left Cork, Ireland, on April 5th,

and the "Great Western" left Bristol, England, on April 8th; the former reaching New York on the morning of April 23, and the latter on the afternoon of the same day.

The first steamship from Liverpool to New York, was the "Royal William," in 1838.

The first steamboat on Lake Ontario was run in 1816 the first on Lake Erie in 1818.

DATES OF THE ESTABLISHMENT OF THE PRINCIPAL TRANS-ATLANTIC STEAMSHIP LINES.

The Cunard, in 1840; the Royal West India Mail, in 1841; the Hamburg American, (Eagle Line,) and the Bremen, (afterwards merged in the North German Lloyd,) in 1847; the Collins, in 1849; the Inman, and the New York and Havre Steam Navigation Company, in 1850; the Allen, in 1853; the Anchor Line, in 1856; the General Trans-Atlantic, (French Line,) in 1861; the National, in 1863; the Williams and Guion, and the Liverpool, Brazil and La Plata, in 1865; the Mississippi and Dominion, and the White Star, in 1870; the White Cross, (New York and Antwerp Line,) in 1872; the American, and the Red Star, in 1873.

TELEGRAPH LINES.

The realization of the wonderful extension of the electric-telegraph system in this country is due primarily to the scientific investigations, discoveries, and suggestions of Prof. Joseph Henry, (in 1828, 1829, 1830,) and to their practical adaptation by Prof. S. F. B. Morse, (in 1844,) along with his ingenious register and code of signals.

Morse's first message was sent from Washington to Baltimore, (40 miles,) on May 24th, 1844, in the words:

"What hath God wrought!"

a first complete message through the (first) Atlantic was delivered on August 12th, 1858.

January 1st, 1878, there were 127,050 miles of telegraph lines in the United States, and 346,439 miles in other parts of the world.

Sides these, there were 90,880 miles of sub-marine cables.

No. 3.—General Statistics of the United States and Territories—Census of 1870, (Ninth.)

STATE OR TERRITORY.	Entered the Union.	CAPITAL IN 1870.	Area. Sq. miles.	Population in 1870.*	Density of population, Persons to Sq. mile.	No. of Reps. in Congress exclusive of Senators.	No. of Post Offices, June 30, 1879.	Order of States accord- ing to popu- lation.
Alabama	1819	Montgomery	50,722	996,992	19.7	8	1,049	16
Alaska	---	---	577,399	---	---	---	2	---
Arizona	---	Prescott	113,916	9,658	0.1	---	74	---
Arkansas	1836	Little Rock	52,198	484,471	9.3	4	884	26
California	1850	Sacramento	188,981	560,247	2.3	4	836	24
Colorado	1876	Denver	104,500	39,864	0.4	1	293	---
Connecticut	1788	Hartford	4,750	537,454	113.2	4	444	25
Dakota	---	Yankton	150,932	14,181	0.1	---	279	---
Delaware	1787	Dover	2,120	125,015	59.0	1	107	34
District of Col.	---	WASHINGTON	64	131,700	2,057.8	---	6	---
Florida	1845	Tallahassee	59,268	187,748	3.2	2	306	33
Georgia	1788	Atlanta	58,000	1,184,109	20.4	9	965	12
Idaho	---	Boise City	86,204	14,999	0.2	---	92	---
Illinois	1818	Springfield	55,410	2,539,891	45.8	19	1,957	4
Indiana	1816	Indianapolis	33,809	1,680,637	49.7	13	1,610	6
Indian Territory	---	---	68,991	---	---	---	70	---
Iowa	1846	Des Moines	55,045	1,194,020	21.7	9	1,467	11
Kansas	1861	Topeka	81,318	364,399	4.5	3	1,389	29
Kentucky	1792	Frankfort	37,680	1,321,011	35.3	10	1,286	8
Louisiana	1812	New Orleans	41,346	726,915	17.6	6	424	21
Maine	1820	Augusta	35,000	626,915	17.9	5	921	23

No. 4.—Population of the Larger Cities of the United States.

With few exceptions * these all have the free-delivery. The year of the Census is 1870, except in cases where a recent State enumeration has been made, which is indicated by the year of the century within parenthesis.

Albany, N. Y., (75).....	86,013	Hartford, Conn.....	37,180	Portland, Me.....	31,413
Allentown, Pa.....	53,180	Hoboken, N. J., (75).....	24,706	Portland, Ore.....	9,123
Atlanta, Ga.....	27,789	Indianapolis, Ind.....	48,244	Pottsville, Pa.....	12,384
Baltimore, Md.....	97,354	Jersey City, N. J., (75).....	109,227	Poughkeepsie, N. Y., (75).....	19,859
Bangor, Me.....	18,289	*Kansas City, Mo., (75).....	32,736	Providence, R. I., (75).....	100,675
Bloomington, Ill.....	14,590	*Kingston, N. Y., (75).....	30,474	Quincy, Ill.....	24,052
Boston, Mass., (75).....	341,919	Lafayette, Ind.....	13,506	Reading, Pa.....	33,930
Bridgeport, Conn.....	18,969	Lawrence, Mass., (75).....	30,223	Richmond, Va.....	51,038
Brooklyn, N. Y., (75).....	484,616	Leavenworth, Kan.....	34,916	Rochester, N. Y., (75).....	51,973
Buffalo, N. Y., (75).....	134,573	Louisville, Ky.....	17,573	Sacramento, Cal.....	16,283
Burlington, Iowa, (75).....	19,987	Lowell, Mass., (75).....	100,753	St. Joseph, Mo., (75).....	23,069
Camden, N. J., (75).....	33,852	Lynn, Mass., (75).....	32,000	St. Louis, Mo., (75).....	49,182
Charleston, S. C., (75).....	56,540	Manchester, N. H.....	40,226	St. Paul, Minn., (75).....	33,178
Chicago, Ill.....	298,977	Memphis, Tenn.....	32,721	Salem, Mass., (75).....	25,908
Cincinnati, O.....	216,239	Milwaukee, Wis., (75).....	100,775	San Francisco, Cal.....	149,473
Cleveland, O.....	92,829	Minneapolis, Minn., (75).....	32,034	Savannah, Ga.....	35,235
Columbus, O.....	31,274	Mobile, Ala.....	25,865	*Scranton, Pa.....	35,092
Covington, Ky.....	24,505	Nashville, Tenn.....	123,310	Springfield, Ill.....	17,364
Davenport, Iowa, (75).....	21,234	Newark, N. J., (75).....	25,805	Springfield, Mass., (75).....	31,053
Dayton, O.....	39,473	New Bedford, Mass., (75).....	25,805	Springfield, O.....	12,652
Denver, Col.....	4,759	New Haven, Conn.....	50,840	Syracuse, N. Y., (75).....	48,315
Des Moines, Iowa.....	14,443	New Orleans, La.....	191,418	*Taunton, Mass., (75).....	20,445
Detroit, Mich., (74).....	101,255	New York, N. Y., (75).....	1,046,037	Toledo, O.....	16,103
Dubuque, Iowa.....	23,005	Norfolk, Va.....	19,229	Tonpeka, Kan.....	5,780
Easton, Pa.....	14,801	Oakland, Cal.....	10,500	Trenton, N. J., (75).....	25,031
Elizabeth, N. J., (75).....	25,923	Omaha, Neb.....	16,083	Troy, N. Y., (75).....	48,821
Elmira, N. Y., (75).....	20,538	Oswego, N. Y., (75).....	22,455	Utica, N. Y., (75).....	32,070
Erie, Pa.....	19,646	Fairport, N. J., (75).....	38,814	Washington, D. C., (78).....	131,947
Evansville, Ind.....	21,530	Peoria, Ill.....	22,849	Wheeling, W. Va.....	19,280
Fall River, Mass., (75).....	45,340	Petersburg, Va.....	18,900	Wilmington, Del.....	30,841
Fort Wayne, Ind.....	17,718	Pittsburgh, Pa., (75).....	817,418	Worcester, Mass., (75).....	49,317
Grand Rapids, Mich., (74).....	25,923				
Harrisburg, Pa.....	25,164				

Some Statistics of other Countries having most Postal Business with the United States.

figures of the Census (or estimate) are those of the year of the present survey. The lengths of railroads and telegraph lines are for the year in most cases. For reference and comparison, the items for the United States are presented in the first line.

COUNTRY.	Area. Sq. Miles.	Population.	Year of cen- sus or est'd	Rail Roads. Miles.	Telegr'h Lines. Miles.
AMERICA -	3,603,884	38,925,598	70	82,894	127,050
Britain and Ireland -----	121,297	31,628,338	71	17,077	114,902
Belgium -----	201,900	36,905,788	76	13,148	35,445
France -----	212,091	42,727,360	75	17,133	24,317
Germany -----	11,373	5,336,185	76	2,105	3,234
Netherlands -----	20,527	3,865,456	77	1,040	2,190
Denmark -----	14,553	1,940,000	78	854	1,901
Spain -----	122,280	1,806,900	75	971	4,662
Sweden -----	170,979	4,484,542	77	3,007	5,168
Switzerland -----	182,758	16,835,506	70	4,937	8,583
Norway -----	15,992	2,759,854	76	1,478	4,322
Austria-Hung'y -----	269,068	38,411,000	78	11,255	29,204
Prussia -----	114,305	26,801,154	71	5,131	14,836
Russia, (in Europe) -----	2,261,657	78,281,447	70	13,414	31,459
Portugal -----	43,220	1,414,508	67	459	
Chile -----	3,550	617,327	72		
Argentina -----	6,900	510,354	71	26	
Paraguay -----	3,021	39,162	71		
Brazil -----	24	12,121	71		
Cuba -----	10,204	? 572,000			
Santo Domingo -----	18,045	? 250,000			
Central Ameri- cal States, (5) -----	166,564	? 2,415,800			
Colombia, 9. -----	504,773	2,913,343	71	66	1,378
Venezuela -----	3,372,290	3,686,096	71	5,574	10,995
Ecuador -----	743,948	9,343,470	74	672	7,310
Peru -----	3,287,964	9,448,233	72	2,238	3,890
Latin Con'f. -----	515,700	1,736,922	69	1,409	4,820
British India -----	908,350	191,018,412	76	7,324	17,840
Malaysia -----	3,068,310	2,503,217	77	2,424	22,557
Zealand -----	104,900	417,622	77	718	3,170
Alaska -----	? 1,535,000	? 405,000,000			
Greenland -----	160,474	32,794,897	75	208	1,838
Farther Isl'ds. -----	7,629	56,897	72		

No. 6.

Population of Principal Cities (chiefly Sea-ports) of the World.

The particular census (or estimate) is indicated by the figures, of the century, within parenthesis ().

Great Britain and Ireland. (Census of 1871.)

Cork, 100,518; Dublin, 295,841; Edinburgh, 196,979; Glasgow, 547,538; Liverpool, 498,405; London, 8,264,260.

France. (1876.)

Bordeaux, 215,140; Havre, 92,068; Marseilles, 318,868; Paris, 1,988,806.

Germany. (1875.)

Berlin, 966,872; Bremen, 82,807; Frankfort-on-Main, 108,136; Hamburg, 845,801.

Belgium. (1876.)

Antwerp, 150,650; Brussels, 376,965; Ghent, 127,653; Liège, 115,851.

Netherlands.

Amsterdam, 296,200 (77); Rotterdam, 186,280 (77).

Denmark.

Aarhuus, 15,026 (70); Copenhagen, 250,000 (78).

Norway.

Bergen, 40,100 (78); Christiania, 106,781 (78).

Sweden. (1877.)

Göteborg, 71,707; Stockholm, 165,877.

Spain.

Barcelona, 215,965 (74); Cadiz, 57,020 (74); Madrid, 367,284 (74); Malaga, 97,943 (74).

Switzerland. (1870.)

Berne, 86,001; Geneva, 46,783.

Austria-Hungary.

Trieste, 109,324 (75); Vienna, 1,020,770 (75).

Italy. (1871.)

Genoa, 180,269; Naples, 448,743; Rome, 244,484; Venice, 128,901.

Russia.

Odessa, 162,814 (78); St. Petersburg, 667,926 (69).

Cuba.

Cienfuegos, 10,338 (—); Havana, 230,000 (78); Matanzas, 36,102 (61); Santiago de Cuba, 36,752 (61).

Porto Rico.

Juan de Porto Rico, 15,367 (60).

Jamaica. (1871.)

gston, 34,814.

Bahamas.

sau, (on New Providence Island,) 9,000.

Bermudas.

nilton, (on Long Island,) —

Hayti.

t-au-Prince, 80,000 (71).

San Domingo.

nana, — (—); San Domingo, 15,000 (—).

Central American States, (5) including Nicaragua.

te of Nicaragua; area, 58,169 sq. m.; pop., 800,000.

United States of Colombia, (9) including Panama (1870.)

pinwall (Colon), 12,000; Bogota, 50,000; Panama, 18,378.

Canada. (1871.)

lifax, 29,582; Montreal, 107,225; Ottawa, 21,545; Quebec, 59,695; Toronto, 46,092.

Mexico.

apulco, 3,000 (?); Mazatlan, 12,000 (?); Mexico, 200,000 (?); Vera Cruz, 10,000 (?).

Brazil. (1872.)

hia, 129,109; Para, 20,000 (?); Pernambuco, 116,671; Rio de Janeiro, 274,972.

Argentine Confederation. (1869.)

enos Aires, 177,790; Cordova, 210,508.

British India.

mbay, 644,405 (76); Calcutta, 794,645 (76); Madras, 397,552 (76).

Australasia. (1871.)

lbourne, (Colony of Victoria,) 54,993; Sydney, (Colony of New South Wales,) 184,755.

New Zealand. (1874.)

ckland, 12,775; Wellington, 10,547.

China.

iton, 1,500,000 (?); Foo-Chow, 800,000 (?); Hankow, 600,000 (?); Ning-po, 115,000 (?); Peking, 1,648,814 (45); Shanghai, 250,000 (?); Tien-tsin, (port of Peking,) 930,000 (?).

Japan.

Hakodate, 50,000 (?); Hiogo, 20,000 (?); Nagasaki, 80,000 (?);
Tokio (Yedo,) 780,621 (75); Yokohama (Kanagawa,) 110,000
port of Yedo, 61,553 (72).

Hawaiian (or Sandwich) Islands.

Honolulu, 14,852 (72).

No. 7.

Postal Statistics of Great Britain.—Principal Successive Improvements.*Year.*

- 1784. Introduction of mail coaches (Palmer's; maximum speed 10 miles per hour.)
- 1838. Railways first used systematically for transportation of the mails.
- 1839. Money-order system introduced (remodeled in 1859.)
- 1840. Penny postage (Rowland Hill's suggestion.)
- 1840. Franking-privilege abolished.
- 1840. Postage stamps and envelopes introduced.
- 1840. Cunard Trans-Atlantic Steamship Line first subsidized.
- 1848. Book-post commenced.
- 1855. First published Annual Report of Postmaster-General.
- 1856. Money-order business commenced with the colonies.
- 1859. Money-order business commenced with foreign countries.
- 1861. Post office savings-banks established.
- 1862. Pneumatic conveyance adopted partially by post office.
- 1865. Life assurance and annuity department of post office started.
- 1870. Telegraph lines of the United Kingdom purchased and worked by the post office.
- 1870. Postal cards introduced (domestic.)
- 1875. Foreign postal cards introduced (under Postal Union Treaty of Berne.)
- 1876. System of returned-letter-offices (dead letters) established at some of the largest provincial towns, in addition to the chief offices in London, Edinburgh, and Dublin; afterwards extended, numbering 172 towns in all in 1878.
- 1878. Reduction in fees for registration of letters.

Operations of the British Post Office for the Financial Year ending March 31, 1878.

Compiled from data in Report of Postmaster-General (Great Britain) 1878.

NOTE.—Population of Great Britain and Ireland, per census 1871: England and Wales, 22,712,266; Scotland, 3,360,018; Ireland, 5,411,416; total, 31,483,700. England and Wales are more densely populated than any country of Europe, except Belgium.

In Great Britain and Ireland :

Number of post offices-----	18,763
Number of officers and employes (including 13,763 postmasters and 11,473 attending to telegraph)-----	45,506
Estimated number of letters passing through the post (exclusive of books, newspapers, and circulars)-----	1,057,782,800
Estimated number of postal cards passing through the post-----	102,237,300
Estimated number of newspapers passing through the post-----	128,558,000
Total number of returned ("dead") letters-----	4,873,625
Proportion of letters sent to the returned-letter-offices to the whole number transmitted is 1 to 217. Of these about nine-tenths were returned to the writers or reissued to corrected addresses.	
Amount of inland (domestic) money-orders issued-----	£27,870,117=\$185,629,924
Post office savings banks—	
Number of offices-----	5,668
Number of open accounts of depositors-----	1,791,240
(Interest allowed, 2½ per cent. per annum.)	
Total amount on deposit-----	£28,740,757=\$189,866,894
Average amount on deposit of each open account-----	£16 0s.10¼d.= \$78.08
Other savings banks (trustee savings banks) of the country at the end of 1876—	
Number of depositors-----	1,493,401
Amount on deposit-----	£43,283,700=\$210,640,126
Total gross receipts of the post office (exclusive of telegraph)-----	6,047,312= 29,429,243
Total expenditure of the post office (exclusive of telegraph)-----	3,990,620= 19,420,352
Net revenue-----	2,056,692= 10,008,891
Postal telegraph revenue-----	1,333,542= 6,489,682
Postal telegraph working expenses-----	1,164,000= 5,664,606
Net revenue-----	169,542= 825,076
Number of messages, 22,171,783.	

Difference of Longitude (Clock-Time) between Principal Cities of the United States.

Among the questions that are forcing themselves upon the attention of railroad and telegraph managers and the general public, is that of the assumption of one or a limited number of standard clock-times over the breadth of this country and the rest of the world, to avoid or to diminish the inconvenience and dangers arising from the indiscriminate use of local clock-times in travel and messages.

As a contribution of facts and useful memoranda towards the decision of this question, the following are offered; the longitudes, with exception of those of Halifax and Chicago, are taken from the published records of the United States Coast and Geodetic Survey:

PLACES.	Difference of Time from Greenwich.		Local Clock <i>fast</i> by Washington Time.	PLACES.	Difference of Time from Greenwich.		Local Clock <i>slow</i> by Washington Time.
	h.	m. s.			h.	m. s.	
Halifax, Nova Scotia ..	4	14 24	0 53 38	Cincinnati, O.	5	37 50	0 29 57
Eastport, Me.	4	27 57	0 40 5	Chicago, Ill.	5	50 32	0 42 30
Portland, Me.	4	41 1	0 27 1	New Orleans, La.	6	0 14	0 52 12
Boston, Mass.	4	44 15	0 23 47	St. Louis, Mo.	6	0 49	0 52 47
New York, N. Y.	4	56 2	0 12 00	Omaha, Neb.	6	23 45	1 15 43
Philadelphia, Pa.	5	0 36	0 7 26	Austin, Texas.	6	30 57	1 22 54
Baltimore, Md.	5	6 28	0 1 34	Denver, Col.	6	59 58	1 51 56
Washington, D. C., Capitol Dome	5	8 2.4		Salt Lake City, Utah...	7	27 35	2 19 33
Washington, D. C., U. S. Naval Observatory..	5	8 12.5		San Francisco, Cal.	8	9 38	3 1 36

15° of longitude = 1 hour difference of time; 1° = 4 minutes;
15' = 1 minute.

Dimensions of the Earth (approximate.)

[Data from article "Earth," by Prof. A. Guyot, in Johnson's *Cyclopædia*.

	Stat. Miles.
Polar Diameter.....	7,899
Equatorial Diameter.....	7,925½
Equivalent Diameter of a Sphere.....	7,916
Circumference at Equator.....	24,900
	Square Miles.
Surface of the Globe.....	196,900,000
Land, (Continents and Islands).....	52,900,000
Water, (Oceans).....	144,000,000

Areas of Continents and Islands.

	Square Miles.
Asia.....	17,817,900
Africa.....	11,556,700
Europe.....	3,785,800
North America.....	8,892,000
South America.....	6,957,500
Islands.....	964,900

Total 52,900,000

Whole Surface of Globe taken as 100; Land is to Water as 27 to 73.

Length of a Degree of Longitude in different Latitudes.

At Equator, 1 degree of longitude = 69.16 statute miles.*	
In Latitude 25°.....	62.72 statute miles.
30°.....	59.94 "
35°.....	56.72 "
40°.....	53.05 "
45°.....	48.99 "
50°.....	44.54 "

No. 9.

Metric and Cental Systems.

Synopsis of the Metric System of Weights and Measures.

By act of Congress, July 28, 1866, the use of this throughout the United States is authorized, though not made mandatory.

* 69.16 statute miles — 60 nautical miles.

The Secretary of the Treasury is authorized and directed to furnish to each State one set of the standard weights and measures.

The Postmaster General is "authorized and directed to furnish to the post offices exchanging mails with foreign countries, and to such other offices as he shall think expedient, postal balances denominated in grams of the metric system, and until otherwise provided by law, one-half ounce avoirdupois shall be deemed and taken for postal purposes as the equivalent of fifteen grams of the metric weights, and so adopted in progression; and the rates of postage shall be applied accordingly."

It may be noticed that as the weight of fifteen grams is about six per cent. more than one-half ounce avoirdupois, (which equals 14.175 grams,) each person in sending mail-matter would have the benefit of so much more weight allowed him (for a given payment) by the use of the metric postal balance.

The primal unit of the whole system is the Meter, (Mètre of the French,) which was originally intended to be one ten-millionth of the distance from the equator to the pole of the Earth; but is now, irrespective of that definition, a recognized length (at a certain temperature) marked on a metal bar, adopted by an International Metric Commission, in 1872.

The metric (or decimal and cental) system is now in use by most of the countries of Europe and South America.

The opposition, or rather the indifference hitherto manifested in this country and in the mother-country, Great Britain, to its full adoption, arises in great measure from non-attention to the transcendent merits of a system so precise, uniform, and easily worked, when once well understood. As the intercourse of mankind increases, the absolute necessity for uniformity and simplicity will bring about this among others of the great reforms, which, when effected, cause wonder that the antiquated and vexatious processes of former generations should have been so long and so patiently endured.

The several units adopted for Length, Surface, Capacity, and Weight, are :

- Length; the *Meter*. For Capacity; the *Liter*.
 Surface; the *Are*. For Weight; the *Gram*.
 METER = 39.37 United States (and British) inches, nearly.
 ARE is a square whose side is 10 meters.
 LITER is the volume of a cube whose edges are $\frac{1}{10}$ of a meter (one decimeter) in length.
 GRAM is the weight of a cube of water (at a specified temperature) contained in a vessel whose capacity is one cubic centimeter, that is, whose edges are $\frac{1}{100}$ of a meter in length.

The scale of nomenclature of successive multiples and sub-multiples (parts) of these units is disposed thus, decimally to left to right of the Unit :

o.	Hecto.	Deka.	UNIT.	Deci.	Centi.	Milli.
00	10	10	1	0.1	0.01	0.001

Or, it may be thus stated, the prefix

a	means 10	times the Unit.	Deci	means one-tenth of the Unit.
to	" 100	" " "	Centi	means one-hundredth of the Unit.
,	" 1000	" " "	Milli	means one-thousandth of the Unit.

The (approximate) equivalents of these units and their derivatives in United States and British measures are as follows; reference being made for full and clear details, tabulated form, to the pamphlets published by the American Metric Bureau, of Boston, Massachusetts, and the papers issued under the authority of the Bureau of Weights and Measures, United States Coast and Geodetic Survey, Prof. J. E. Hilgard, Inspector United States Standard Weights and Measures, Washington, D. C.:

• *Meter* = 39.37 inches.

1 kilometer (1000 meters) = 0.62137 statute mile = about $\frac{5}{8}$ mile.

1 millimeter (mm.) = $\frac{1}{1000}$ meter = $\frac{1}{25}$ inch, nearly.

1 statute mile = 1609.35 meters.

1000 feet = 305 meters.

80 inches = 761.99 millimeters (in round numbers 762 mm.)

• *Are* (1 square decameter or 100 square meters) = 119.6 square yards.

1 hectare (100 ares) = 2.471 acres.

1 square kilometer (*Kilomètre carré*) = 0.386 square mile = 247 acres.

1 acre = 0.405 hectare.

1 square mile = 259 hectares = 2.59 square kilometers = 640 acres.

The *Liter* (1 cubic decimeter) = 0.908 quart U. S. dry measure
= 1.0567 quarts U. S. liquid measure.

1 hectoliter (100 liters) = 26.417 gallons (U. S.) = 2.837 bushels (U. S.)

1 hectoliter = 22.09 gallons (British Imperial.)

1 stere (1 cubic meter) = 1.308 cubic yards = 264.17 gallons (U. S.) liquid measure.

*1 gallon (U. S.) = 231 cubic inches = 3.79 liters.

1 quart (U. S.) = 0.9465 liter.

1 bushel (U. S.) = 35.24 liters.

*1 gallon (British Imperial) = 277.274 cubic inches = 4.54 liters.

1 bushel (British Imperial) = 36.32 liters = 8 gallons.

The *Gram* (weight of 1 cubic centimeter of water) = 15.432 grains troy = 0.0353 ounces avoirdupois.

1 kilogram (or kilo) = weight of 1 liter of water = 2.2046 lbs. avoirdupois.

1 milligram ($\frac{1}{1000}$ gram) = 0.0154 grains troy.

1 quintal (100 kilograms) = 220.46 lbs. avoirdupois.

1 ton of 2000 lbs. = 907 kilos, nearly.

11 lbs. = 5 kilos, nearly.

1 lb avoirdupois (7000 grains troy) = 0.45359 kilos = 454 grams, nearly.

1 oz. avoirdupois = 28.35 grams.

$\frac{1}{2}$ oz. avoirdupois = 14.175 grams = 218.75 grains troy,

15 grams = 231.480 grains troy.

No. 10.

**Weights and Measures of Foreign Nations, (selected list),
stated approximately, with the equivalents of their
principal moneys in United States Dollars.**

The several kinds of measures are designated hereunder
by the initials **L.** (Length,) **S.** (surface,) **C.** (Capacity),
W. (Weight,) **M.** (Money.)

GREAT BRITAIN. **L.** Mile (statute or land) = 8 furlongs = 1760 yards = 5280 feet. Fathom = 6 feet. Knot (sea or geographical mile) = 1.15 statute miles. League = 3 sea miles. The yard = 3 feet is the legal unit, and is equal to 914.4 millimeters of the metric system. **S.** Acre = 4 roods

*The U. S. Gallon is the old Winchester wine-gallon of Great Britain (of 1706) = 231 cubic inches = about $8\frac{1}{2}$ lbs. avoirdupois of water; whereas, the present British Imperial Gallon (of 1826) = 277.274 cubic inches = 10 lbs. avoirdupois of water at 62° Fahr. The British Bushel = 8 gallons.

= 4840 square yards. Square mile = 640 acres. **C.** Imperial Gallon, having the capacity of 277.274 cubic inches, and containing 10 lbs. avoirdupois of water, at temperature 62° Fahr. Bushel = 8 gallons. Quarter = 8 bushels. Hogshead = 63 Wine gallons = 52½ Imperial gallons. **W.** Pound (avoirdupois) = 16 ounces (oz.) = 7000 grains (troy.) 14 lbs. = 1 stone; 2 stones = 1 quarter; 4 quarters = 1 cwt.; 20 cwt. = 2240 lbs. = 1 ton. **M.** Pound sterling (£1) = 20 shillings = \$4.8665.

ANCE. New Measures, (Metric.) **L.** Mètre = 3.28 feet. Kilomètre = 0.62 statute mile. Millimètre (mm.) = about $\frac{1}{25}$ inch. **S.** Hectare = 2.47 acres. Kilomètre Carré (sq. kilom.) = 0.386 square mile = 247 acres. **C.** Litre = 0.264 gallon. Hectolitre = 22 gallons, nearly = 2½ Imperial bushels, nearly. *Roughly*, the litre = 1½ pints, (Imp.), the decilitre = a wineglass full, the centilitre = a small dessert spoonful, the millilitre = quarter of a teaspoon full. **W.** Kilogramme (or kilo) = 2.205 lbs. Quintal = 220 lbs. Tonneau = 2200 lbs. **M.** Franc, (of silver, weighing exactly 5 grammes) = 100 centimes = \$0.193, [\$1. = 5.18 francs.] Gold is to silver as 15½ to 1. Both gold and silver coins are nine-tenths fine, (i. e., one-tenth alloy.) *Old Measures.* **L.** Pied du roi = 12.789 inches. Toise = 6 pieds du roi. Lieu de poste = 4 kilomètres. **S.** Arpent, varied from $\frac{1}{2}$ acre to 1½ acre. Legal Arpent = 1.262 acres = 51.072 ares. **W.** Livre = 1.079 lbs. avoirdupois = 489.5 grammes.

RMANY. The Metric System is compulsory, but German names are permitted. **M.** Mark (100 Pfennig) = \$0.238. *Old Measures* were various in the different States. **L.** Prussian Post-Mile = 2000 ruthen = 4.6807 British miles. **S.** Morgen (or Acker) in Prussia = 0.6309 acre = 0.2553 hectare.

LGIU and **THE NETHERLANDS** have both adopted the Metric System. **M.** Franc = \$0.193. In the Netherlands, besides the Franc, the Florin (silver) is used = \$0.385, and the 10 gulden piece (gold) = \$4.019.

NMARK retains the old measures. **M.** Crown (100 öre) = \$0.268.

EWAY and **SWEDEN**, after decimalizing their old measures as a temporary expedient, have concluded to adopt the Metric System. **L.** Norwegian Mile (Miil) = 7.01 miles.

AIN and Dependencies. Metric system, with Spanish names. **M.** Peseta (100 centimes) = 4 reales = \$0.193. *Old Measures.* **L.** Vara = 33.885 inches. Legua = 8000 varas =

4.1508 miles. **S.** Yugada = 50 Fanegadas = 79.355 acres. **O.** Arroba (for wine) = 4.079 gallons; (for oil) = 3.186 gallons. Fanega = 1.555 bushels. **W.** Quintal = 101.4 lbs. avoirdupois. Arroba = 25.35 lbs. avoirdupois. Libra = 1.014 lbs. avoirdupois. **M.** Doblon = 10 Escudos = 100 reales = \$5.015.

SWITZERLAND. Metric System, with exception of some of the measures. *Old Measures* mostly various in different Cantons. **L.** Pied = 11.81 inches = 300 mm. Lieue = 16,000 peds = 2.98 miles. **S.** Arpent = 8.56 acres = 1.44 hectares. **W.** Livre, or Pfund of the Zollverein = 1.102 lbs. avoirdupois = $\frac{1}{2}$ kilogram. Centner = 100 pfund. **M.** Same as Francé.

AUSTRIA-HUNGARY. Metric System, German names allowed. *Old Measures.* **L.** Meile = 4000 Klafter = 4.714 miles. Ruthe = 2 Klafter. **S.** Joch = 1600 square Klafter = 1.42 acres. **C.** Mass = 0.374 gallon. Metze = 1.745 bushels. **W.** Pfund (of Vienna) = 1.2347 lbs. avoirdupois. Centner = 100 pfund. **M.** Florin or Gulden (100 Kreuzer) = \$0.482. 8 Gulden or 20 francs = \$3.8589.

ITALY. Metric System compulsory, with Italian names. **M.** Lira (100 centesimi) = 1 franc = \$0.193. *Old Measures.* Very various in the different States.

RUSSIA. Adheres to old measures. **L.** Sagene = 7 feet (U. S.) = 2.1334 meters. Archine = $\frac{1}{3}$ Sagene. Verst = 500 sagenes = 3500 feet = 1.06678 kilometer = about $\frac{2}{3}$ mile. **S.** Deciatine = 2.70 acres = 1.09 hectares. **C.** Vedro = 8.249 gallons. Tschotverik = 0.744 bushel = 26.22 liters. **W.** Funte (or pound) = 0.9026 lbs avoirdupois. Pood = 40 funtes = about 36 lbs. avoirdupois. **M.** Rouble (100 copecks) = \$0.748.

CUBA and PORTO RICO. See SPAIN.

JAMAICA, BAHAMAS, and BERMUDAS. See GREAT BRITAIN.

HAYTI and SAN DOMINGO retain the old French measures, but the Metric System is coming into use.

CENTRAL AMERICAN STATES (5) and the UNITED STATES OF COLUMBIA (9) retain the old Spanish measures. See SPAIN. **M.** Peso (dollar) = \$0.935.

CANADA and other British Possessions in North America. See GREAT BRITAIN. **M.** Dollar = \$1.00. **S.** In the former Lower (French) Canada, now Province of Quebec, the Arpent = 0.8449 acre = 0.33796 hectare. **W.** The old British cwt. and ton (of 2240 lbs.) are abolished, and are now legally 100 lbs. and 2000 lbs.

MEXICO. Metric System. **M.** Peso (dollar) = \$1.015. *Old Measures* were those derived from Spain. **L.** Vara = 33.385 inches. 5000 Varas = 1 League = about 2.6 miles. 108 Varas = 100 yards. **S.** 1000 Varas = 1 Labor = about 177½ acres. Square League = 1 Sitio = about 4428 acres. Four Sitio = One Township.

AZIL. Metric System. **M.** Milreis (of 1000 reis) = \$0.545. The *Old Measures*, still in use, are derived from Portugal. **L.** Covado = 25.985 inches = 660 mm. Milha = 1.2785 miles. **S.** Geira = 1.4287 acres. **C.** Alqueire (of Rio de Janeiro) = 1 Imperial British bushel. **W.** Libra = 1.012 lbs. avoirdupois. Arroba = 32.88 lbs. avoirdupois. Quintal = 129.54 lbs. avoirdupois.

GENTINE CONFEDERATION. Metric System, in partial use. New Standard. 1 Ser = 1 kilogram; unit of capacity is 1 Ser of water at maximum density, in vacuo. **M.** Peso fuerto (silver) = 100 centesimos. *Old Measures.* **C.** Fanega = 1½ Imperial British bushels. **W.** Arroba = 25.85 lbs. avoirdupois. Quintal = 101.40 lbs. avoirdupois.

INDIAN INDIA, AUSTRALASIA AND NEW ZEALAND; Colonies of GREAT BRITAIN, which see. In British India, Rupee (16 annas) = \$0.444. A sum of 1000 Rupees is called a lac.

CHINA. **L.** Chik (of Peking) = 13.125 inches; (of Canton) = 14.76 inches = 374.9 mm. 10 Chick = 1 Chang; 10 Chang = 1 Yan. Li = 1825.5 feet = 556.41 meters. **W.** Catty = 1½ lbs. avoirdupois = 604.7 grams. Picul (or Tam) = 100 catties. Tael (or Leang) = 1½ ounce avoirdupois. **M.** Tael is a certain weight of silver, varying in value. There are no standard gold or silver coins in China. The so-called Tael is an ideal money of account with foreigners, being the value of a certain weight of "sycee," (melted silver,) or its weight of Mexican, Spanish, or American Trade Dollar; varying in value with the fineness of the silver, and at the different sea ports. The Haikwan (marine customs) Tael has an average value of \$1.53. Small copper coins called "cash" are in circulation,—average value 1760 cash = 1 Tael of silver.

JAPAN. **L.** Shaku = 10 Sun = 11.93 inches = 303.03 mm. Ri = 36 Chō = 2½ miles. **S.** Chō = 2½ acres. **W.** Sen (formerly called Momme) = 3.756521 grams. Kin (or Catty) = 160 sen = 1.325 lbs. avoirdupois = 601.04 grams. Picul (or Tam) = about 133 lbs. avoirdupois. **M.** Yen (or dollar) = \$0.997.

SANDWICH (OR HAWAIIAN) ISLANDS. The system is that of the United States. **M.** Dollar = \$1.00.

No. 18 (A.)

To convert Statute (Land) Miles into Nautical (Sea) Miles.				To convert Nautical (Sea) Miles into Statute (Land) Miles.			
Statute Miles.	Nautical Miles.	Statute Miles.	Nautical Miles.	Nautical Miles.	Statute Miles.	Nautical Miles.	Statute Miles.
1	0.87	100	86.76	1	1.15	100	115.27
2	1.73	200	173.51	2	2.31	200	230.53
3	2.60	300	260.27	3	3.46	300	345.80
4	3.47	400	347.02	4	4.61	400	461.07
5	4.34	500	433.78	5	5.76	500	576.33
6	5.21	600	520.53	6	6.92	600	691.60
7	6.07	700	607.29	7	8.07	700	806.87
8	6.94	800	694.04	8	9.22	800	922.13
9	7.81	900	780.80	9	10.37	900	1,037.40
10	8.68	1,000	867.55	10	11.53	1,000	1,152.67
20	17.35	2,000	1,735.11	20	23.05	2,000	2,305.33
30	26.03	3,000	2,602.66	30	34.58	3,000	3,458.00
40	34.70	4,000	3,470.22	40	46.11	4,000	4,610.67
50	43.38	5,000	4,337.77	50	57.63	5,000	5,763.33
60	52.05	6,000	5,205.32	60	69.16	6,000	6,916.00
70	60.73	7,000	6,072.88	70	80.69	7,000	8,068.67
80	69.40	8,000	6,940.43	80	92.21	8,000	9,221.34
90	78.08	9,000	7,807.99	90	103.74	9,000	10,374.00

No. 13 (B.)

To convert Statute (Land) Miles
into Kilometers.

Statute Miles.	Kilometers.	Statute Miles.	Kilometers.
1	1.61	100	160.93
2	3.22	200	321.87
3	4.83	300	482.80
4	6.44	400	643.74
5	8.05	500	804.67
6	9.66	600	965.61
7	11.27	700	1,126.54
8	12.87	800	1,287.48
9	14.48	900	1,448.41
10	16.09	1,000	1,609.35
20	32.19	2,000	3,218.69
30	48.28	3,000	4,828.04
40	64.37	4,000	6,437.39
50	80.47	5,000	8,046.73
60	96.56	6,000	9,656.08
70	112.65	7,000	11,265.43
80	128.75	8,000	12,874.78
90	144.84	9,000	14,484.12

To convert Kilometers into
Statute (Land) Miles.

Kilometers.	Statute Miles.	Kilometers.	Statute Miles.
1	0.62	100	62.14
2	1.24	200	124.27
3	1.86	300	186.41
4	2.49	400	248.55
5	3.11	500	310.69
6	3.73	600	372.82
7	4.35	700	434.96
8	4.97	800	497.10
9	5.59	900	559.23
10	6.21	1,000	621.37
20	12.43	2,000	1,242.74
30	18.64	3,000	1,864.11
40	24.85	4,000	2,485.48
50	31.07	5,000	3,106.85
60	37.28	6,000	3,728.22
70	43.50	7,000	4,349.59
80	49.71	8,000	4,970.96
90	55.92	9,000	5,592.33

No. 14.

Sea Distances Between Principal Sea-ports of the World.*These distances are stated in statute miles.***NEW YORK TO—**

Queenstown	3,250	Halifax	645	Vera Cruz	2,265
Liverpool	3,540	Bermudas	805	Belize	1,960
Glasgow	3,240	Norfolk	385	Aspinwall	2,305
Southampton	3,680	Charleston	780	San Domingo	1,725
Brest	3,370	Savannah	840	St. Thomas	1,635
Bordeaux	3,630	Nassau	1,105	Rio Janeiro	5,925
Havre	3,680	Key West	1,830	Valparaiso	10,050
Antwerp	3,960	New Orleans	1,940	Panama	12,800
Bremen	4,260	Havana	1,350	Melbourne	14,660
Hamburg	4,280	Kingston (Ja.)	1,820	Sydney	15,260

SAN FRANCISCO TO—

San Diego	512	Sitka	2,174	Auckland	6,880
Panama	8,760	Honolulu	2,390	Sydney, direct	7,380
Astoria	642	Yokohama	5,200	Sidney (via Honolulu & Fiji Islds.)	7,500
Portland	745	Shanghai	6,390	Liverpool	16,560
Victoria	860	Hong Kong	7,000	Valparaiso	5,950
P't Townshend	893	Calcutta	10,488	New York	16,000
Tacoma	966	Ngaloa (F.I.)	5,570		

SAN DIEGO TO—

San Francisco	512	Hong Kong	7,390	Sydney, direct	7,450
Panama	8,250	Calcutta	10,880	Sidney (via Honolulu & Fiji Islds.)	7,730
Honolulu	2,622	Ngaloa (F.I.)	5,520		
Yokohama	5,590				

NEW ORLEANS TO—

Key West	660	St. Thomas	1,875	Bahia	5,525
Havana	690	Para	3,835	Rio Janeiro	6,360
Vera Cruz	920	Pernambuco	5,085	Buenos Aires	7,650
Aspinwall	1,610				

KEY WEST TO—

Havana	103	Norfolk	1,090	New York	1,328
Savannah	640	Baltimore	1,250	Boston	1,578
Charleston	670	Philadelphia	290		

GALVESTON TO—

Havana	865	Vera Cruz	865	Rio Janeiro	6,340
Brazos Santiago	300	St. Thomas	2,050		



THE UNIVERSITY OF CHICAGO

BALTIMORE TO—

Fort Monroe.....171 Norfolk184

WASHINGTON TO—

Fort Monroe.....189 Norfolk202

HAVANA TO—

New York.....1,350 Vera Cruz.....840 Rio Janeiro...5,670
New Orleans... 690 Aspinwall.....1,190

ST. THOMAS TO—

Liverpool.....4,065 Havana.....1,185 Bahia.....3,650
Southampton...4,115 Aspinwall.....1,180 Rio Janeiro...4,485
Halifax.....1,800 Para.....1,960 Montevideo...5,670
Bermudas..... 960 Pernambuco...3,210 Buenos Aires...5,775
New York.....1,650

Panama to Sydney.....8,830 miles.

LIVERPOOL TO—

Quebec.....3,225 Baltimore.....3,910 St. Thomas.....4,065
Halifax.....2,835 Savannah.....4,000 Rio Janeiro...5,940
Portland.....3,185 Havana.....4,790 San Francisco (via
Boston.....3,870 New Orleans...5,480 Cape Horn)...16,560
New York.....3,540 Lisbon.....1,180 Melbourne...15,000
Philadelphia...3,750 Madeira.....1,650 Sydney.....15,700

DISTANCES BY RAILROAD, CONNECTING A FEW OF THESE SEA-PORTS:

Liverpool to London, 202 miles; London to Dover, 88; Dover to Calais, (sea,) 26; Calais to Paris, 184; Paris to Marseilles, 587; Southampton to Havre, (sea,) 120; Havre to Paris, 140; Southampton to London, 80; Glasgow to Edinburgh, 42; Edinburgh to London, 400; Hamburg to Berlin, 178; Aspinwall (Colon) to Panama, 48.

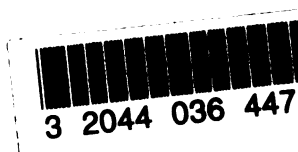
FROM SOUTHAMPTON, BY SEA, AROUND THE WORLD, (INTERMEDIATE DISTANCES:

Southampton... 0 Bombay.....1,885 Honolulu.....2,810
Gibraltar.....1,450 Point de Galle.1,050 San Francisco.2,390
Malta.....1,120 Singapore.....1,835 New York
Suez (via canal).1,175 Hong Kong—1,650 (by Railroad).3,317
Aden.....1,508 Yokohama...1,830 Southampton...3,680

Total distances by this route.....25,700 miles.

The foregoing distances are estimated by the usual (average) routes. In any future editions these tables may be extended or corrected where necessary.

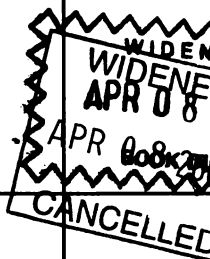
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